ILLINOIS

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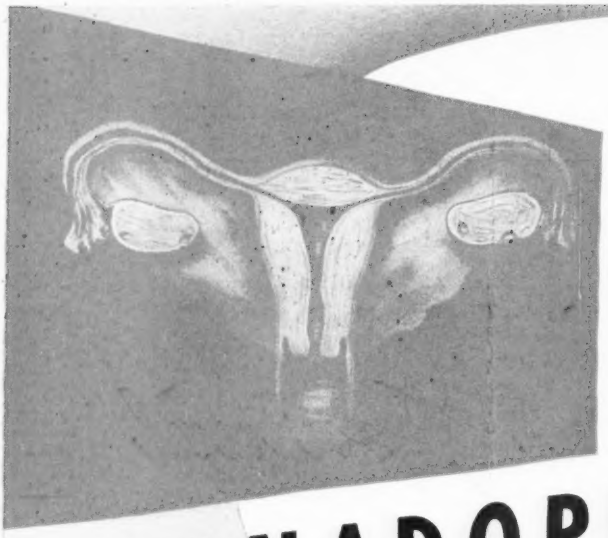

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*Synopsis of Materia Medica, Toxicology, and Pharmacology, Davison, F. R.: Hormones, St. Louis, The C. V. Mosby Company, 1942, p. 582.

SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

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The Illinois Medical Journal

November, 1945
VOL. 88, NO. 5

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

PROPOSED EXPANSION OF THE EMIC PROGRAM

During the war emergency physicians throughout the country cooperated in carrying out the provisions of the Emergency Maternal and Infant Care Program, commonly referred to as the EMIC program. Wives and children of hundreds of thousands of men in service in the lower grades received adequate obstetrical and pediatric care at the rates prescribed in the Act, with the government paying the medical and hospital bills through the various state health departments.

Senator Pepper of Florida recently introduced in the Senate, S.B. No. 1318 "Maternal and Child Welfare Act" of 1945. Under this bill the Children's Bureau would have jurisdiction over the operation of the Act, and maternal and pediatric care would be available to everyone regardless of income, at government expense. As was the case under EMIC, payments made under this Act would constitute complete payment for services rendered, and the fees for services would be similar to those allowed physicians under EMIC.

The Bill would authorize the appropriation of $100,000,000 for its operation until July 1, 1946, which Senator Pepper states, "will give a fair start toward our objective, though it will be only a beginning". Under the proposed bill the care of children will continue until the age of 21 is attained. The Senator admits that the proposed nation-wide child health and child welfare program is not something that can be created in a year. "For that we must have time to develop services, train personnel, develop facilities, conduct research and demonstrations, and educate parents in the use of facilities and in the application of expanding scientific knowledge".

From the above frank statement, it is quite obvious that such a program if ever established, will cost not millions, but billions of dollars annually, for the practitioners who have in the past cared for the majority of women throughout the country during confinements, will either have to take special training under the guidance of recognized approved specialists, or discontinue obstetrical work entirely.

Senate Bill No. 1318 is only one of several bills recently introduced in Washington which would tend to completely change medical care throughout the nation. There definitely is a great deal of overlapping of services in several of these proposals. All of them, however, would increase the power and authority of the Federal Government in controlling or supervising medical care in the future.

In his introductory remarks when the Bill was introduced, Senator Pepper said, "The authorizations for appropriations which we are suggesting for this year will give us a fair start toward our objective, though it will be only a beginning." It is quite logical to assume that the expansions which he has in mind will make the expense in

connection with its operation a major tax expense in the not too distant future.

SEPARATION OF MEDICAL OFFICERS FROM SERVICE

Within recent weeks the Procurement and Assignment Service for Physicians has received hundreds of letters, telegrams and phone calls from physicians desiring to be released at the earliest possible moment from the armed forces. In a number of communities petitions have been circulated and submitted with literally hundreds of signatures asking for the early return of their doctor. Previously a few physicians were released when it could be shown that there was an urgent need for them in the community where they formerly were in practice.

With the present point system many hundreds of physicians are now being released who have accumulated a sufficient number of points. It seems quite probable that this number will be increased quite materially during the last two months of this year as the Surgeon General of the Army has announced that approximately 13,000 are to be separated before the end of 1945.

Efforts are made constantly to get information as early as possible on the release of Illinois physicians. The secretaries of component county medical societies, as well as the county Procurement and Assignment Service Committees are being asked to submit information concerning the release and return of medical officers as soon as it is known locally. Every county society secretary and every Procurement and Assignment Service County chairman have received return postcards to list the names and addresses of every physician within the county who has already been released, and they are asked to keep a supply of cards on hand to report further releases as soon as they are effective.

In this way the Illinois State Medical Society will have this information, and it will be easier to anticipate community needs along the line of additional medical personnel in the files to aid returning men who desire to change their location, or those who have not been in practice previously.

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Society proceedings and news items and changes in the mailing list to Managing Editor, 30 N. Michigan Ave., Chicago 2, Illinois.

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We have endeavored to maintain a list of those physicians who have been separated recently, although we realize that this list is not complete. Additions will be published in future issues of the Journal. We are publishing the name and address of those who have been released, and about whom we have been notified. Information concerning others who have not been reported will be greatly appreciated, and this data should be sent to the office of the secretary of the Illinois State Medical Society.

The list of Illinois physicians whose release from military service has been reported as of *October 25, 1945, is as follows:*

FROM DOWNSTATE

Adelman, Robert, Rock Falls.
Alen, Elmer S., Arcola
Anderson, Stanley Edward, Rockford
Ashworth, Adrian Lincoln, Anna

Barber, Harry Clay, Normal
Barthelme, Francis Lorraine, Effingham
Bartoli, Adolph, LaSalle
Baumann, Charles Hugo, Belleville
Berger, Raymond A, Galesburg
Blatchford, Frank W. Jr., Highland Park
Blocksom, Berget Henre Jr., Rockford
Blomberg, Thorsten Emil, Rockford
Bohan, John Edward, Toulon
Bolotoff, Bernard Edward, Rockford
Boswell, Clarence Henry, Rockford
Boyd, Douglas, Highland Park
Boyd, Olin Blackburn, East St. Louis
Brooks, Clyde M., Carbondale
Brown, Samuel, East Moline
Brown, Theodore Wallingford, Marissa
Buckley, Mortimer Joseph, Frankfort
Burgess, John Paul, Rock Island
Burkhart, George Hickman, Benton
Burley, Robert DeForrest, Beardstown
Bussey, Arthur David, Joliet

Carey, Charles Kennedy, Rushville
Chione, Alfred George, Danvers
Christenson, Albert William, Rockford
Cinelis, Adolph Richard, Marengo
Citron, Robert Raphael, Peoria
Cohen, Jacob, Granite City
Conway, Martin Eugene, Aledo
Cook, George Alexander, Silvis
Culhane, Thomas Henry Jr., Rockford

Davis, Irwin William, Belleville
Donovan, Ray Flowers, Watseka
Durra, Samuel Parnell, Rock Island

Eisenstein, Edward, Rockdale
Endres, Fred Carl, Peoria Heights

Farmer, David K., Mansfield
Fash, James Cane, Stronghurst
Feinerman, Albert Hyman, Macomb
Felts, William Froy, Carbondale
Fey, David William, Peoria
Flatley, Robert Edward, Moline
Fleischli, Frank Karl, Springfield
Fleischli, George Herman, Springfield
Frazier, Elijah S., Effingham

Gardner, Leon Philip, Joliet
Graland, John Courier, Elgin

Hanann, Carl Henry, Rockford
Hanson, Martin Franklin, Havana
Harmeyer, Mark Edward, Peoria
Hartford, William Scott, Champaign
Haskins, William Vincent, LaSalle
Heidgen, Martin F., Elmhurst
Helm, John Wesley, Gridley
Hughes, Mark Jacob, Grand Tower
Hungness, Norman Olaf, Sheldon
Hunsaker, Curtis Arthur, Marion

Illyes, Roscoe Orien, Lawrenceville
Isenhart, Lawrence Francis, Mount Caroll

James, Elmer David, Belvidere
Jenkins, David Meredith, Bloomington
Jensen, Russell Maben, Monmouth
Johnston, James Paul, East Moline

Kaiz, Seymour Pass, Waukegan
Kearney, Cletus Timothy, Gridley
Kelly, Clarence Francis Jr., DuQuoin
Knewitz, Ralph Wylde, Belleville
Koenig, Frank J., Normal
Koenigsberg, Noah Meyer, Bell Flower
Koivun, Oscar Wilhart, Moline
Kunde, Emerson Charles, Woodstock

Leimbacher, Earl Smith, Joliet
Liebig, Gustav Adolph, Peoria
Liedermann, Albert, Sterling
Lofdahl, George Aleck, Joliet

Mack, J. Keller, Springfield
Mansion, George Nicholas, Pekin
McCall, Harold F., Dixon
McGinnis, William Schafly, Alton
McGrath, Philip Raphael, Peoria
McKinley, Hugh A., Highland Park
McNeely, G. B., Stanford
Merideth, John Andrews, Cobden
Messman, Lorrell Edward, Champaign
Mullen, Vincent Victor, Havana
Murfin, Maurice, Decatur

Neff, Emery Bowers, Moline
Nolan, Charles Joseph Jr., East St. Louis
Norris, Millard Fillmore Jr., Pawnee

O'Casek, Miles Frank, Elmhurst
Oliver, Wesley Bair, Belvidere
O'Neill, Paul Joseph, Alton
Oxman, Emanuel M., Kankakee

Parker, Elliott Francis, Moline
Parker, Meyer Herbert, Louisville
Patterson, Roy Lee, Canton
Pearson, Emmett Forrest, Springfield
Percy, Irving E., Roxana
Powell, John Rodger, Champaign
Powell, Paul Wayne, East Moline

Raiford, Theodore Sidney, Decatur
Ranker, Clarence Andrew, Springfield
Reinhardt, Charles Otto, Mascoutah
Robinson, Leon Edward, Aledo
Rockey, Lawrence Frank, Freeport
Rockey, Victor Vernon, Freeport
Rogers, James Creighton T., Urbana
Rokita, Adam Walter, Quincy
Rosenbaum, William Harry, Deerfield
Rossman, Edward John, Aurora
Rutherford, Robert Horace, Carlinville
Ryder, Bruce Ivan, Henry

Sandberg, Ivan Magnus, Princeton
Sawyer, Preston Walker, Kankakee
Scanlon, William, LaSalle
Schach, Arthur Carl, Rockford
Schiller, Herbert A., Kankakee
Scopelight, Joseph Aloysius, Madison
Shamel, John Hayden, Springfield
Sherrod, Vincent Alan, Robinson
Shriner, Walter, Springfield
Siegert, Rudolph Bernhardt, Pana
Sirles, Wayne Pulley, Herrin
Slatin, Louis, Decatur
Sokolowski, Felix Walter, Alton
Stafford, Wilfred Farber, Mattoon
Stanul, Peter Joseph, North Chicago
Steinberg, Richard Mitten, Fairbury
Stephenson, George Willoughby, Bloomington
Stolpestad, Clifford Theodore, DeKalb
Summers, Thomas Fern, Olney

Talbert, Wilmer M., Decatur
Tavenner, John Lyle, Dixon
Teasley, Benager Columbus Jr., Robinson
Telford, Elbridge Wright, DeKalb
Thompson, Neill Archie, Eldorado
Tomkens, Samuel William, Hampshire

Uthoff, Carl Joseph, Elmhurst
Utter, Henry Abraham, Anna

Wadsworth, Harold Vivian, Joliet
Wagenseller, Samuel Miller, Decatur
Walker, William Dallas, Ashley
Wathier, Lawrence Nicholas, Atkinson
Weston, Charles Leland, Macomb
Wiesman, Irvin, Granite City
Wise, Albert Walter, Rock Island
Wisshack, Erich Eugene, Adair
Wolfe, Albyn Garrett, Jacksonville
Woll, Maurice, Alton
Wood, George Carlyle, Effingham
Wood, Oliver Marshall, Ipava

Young, Leslie Winters, Fairfield

FROM COOK COUNTY

Allegretti, Joseph E., 2445 North Sawyer Ave.,

Baratz, J. Joseph, 6549 North Artesian Ave.
Barryte, Lucien E., Jr., 2104 Belmont Ave.,
Bay, Anthony, 628 Wrightwood Ave.,
Besick, Anna C., 6805 Cermak Rd., Berwyn
Bilek, George J., 2650 South Homan Ave.,
Blatchford, Frank W., Jr., 723 Elm St., Winnetka
Boland, Joseph J., 1110 North Austin Blvd., Oak Park
Bornemeier, Walter C., 55 E. Washington St.,
Bowler, Vincent B., 712 North Austin Blvd., Oak Pk.
Bowser, Albert W, 1853 S. 60th St., Cicero, Ill.
Boykoff, Max P., 2022 Arthur Ave.
Brewer, John I., 2222 E. 70th Pl.
Buckley, Mortimer J., White St., Frankfort, Ill.
Burket, Walter C., 2750 Ridge Ave., Evanston

Chardkoff, M. Austin, 1001 Leland Ave.
Colletti, Michael J., 127 S. Central Park
Conley, Arthur H., 559 Franklin Ave., River Forest
Cook, Franklin, 2747 Hurd Ave., Evanston
Corbus, Budd Clarke, Jr., 636 Church St., Evanston
Crain, Ransome Carter, 30 North Michigan Ave.

Dashiel, Grayson F., 408 Briar Place
Davis, Loyal, 54 East Erie St.
DePinto, Dominic A, 2400 West Van Buren St.
DeTrana, Frank A., 4815 West Nelson St.
D'Iorio, Philip J., 3908 Cottage Grove Ave.
Duggan, Daniel J., 515 North East Ave., Oak Park
Dvorak, Emanuel R., 2510 Christiana Ave.

Ebert, Benjamin L., 540 Briar Place
Effron, David V., 2208 East 68th St.
Egel, Paul M., 5018 North Kimball Ave.
Ellwood, Walter W., 5125 South Ellis Ave.
Erxleben, Walter O., 5848 N. W. Circle

Farinacci, Maurice G., 5519 South Talman
Feldman, Morris, 4013 Milwaukee Ave.
Forkosh, Sydney R., 6820 Raven St.
Francona, Anthony, 1636 North Nordica.
Franklin, Charles E., 7202 Oak St., River Forest
Frisch, Isaac J., 25 E. Washington St.

Galloway, Charles E., 636 Church St., Evanston
Goldstein, Morris, 6879 Wildwood Ave.
Goodhart, J. A., 6557 South Francisco
Green, Raymond, 5105 Drexel Blvd.
Grill, Frank T., 1858 Cermak Road
Grombacher, Curt S., 1228 Argyle St.
Guttman, Joseph R., 185 North Wabash Ave.

Hawkins, Kyle C., 5200 West Chicago Ave.
Hoeppner, Walter F., 1912 West 103rd St.
Hoffstadt, John P., 6355 Broadway
Hootnick, Harry L., 5524 N. Mason St.
Hootnick, Jacques I., 8015 Kingston Ave.
Horwitz, Bernard L., 2636 Farwell Ave.
Horwitz, Herman L., 11106 South Michigan Ave.
Howser, John W., 304 N. Lombard Ave., Oak Park
Hubrich, Leon R., 5735 Roscoe St.

Ignoffo, Matthew F., 1628 Gregory Ave.

Jablonowski, Alexander, 2922 East 79th St.
Jackson, Bruce E., 1745 West Steuben St.
Jakopick, William Francis, 10344 S. Leavitt St.
Janda, Charles L., 3534 West 26th St.
Johnson, Carl A., 5208 South Greenwood Ave.
Juliano, Aniello A., 7827 Crandon Ave.

Karabin, Andrew L., 11117 Emerald Ave.
Kaufman, Saul D., 1608 Milwaukee Ave.
Keane, John W., 1211 N. Linden Ave., Oak Park
Kearney, Richard D., 3400 West 64th St.
Keren, Meyer J., 4800 Milwaukee Ave.,
Kessler, Charles T., 4325 Elston Ave.
Kittilsen, Lester H., Park Ridge, Ill.
Klocker, Karl J., 1833 N. Newland Ave.
Koll, Irvin S., 25 E. Washington St.
Krol, Edward J., 6952 South Talman Ave.

Latimer, Earl O., 7549 Crandon Ave.
Latz, Leo J., 2958 West Hollywood.
Lavieri, Frank J., 5000 West Madison St.
Lazar, A. M., 30 North Michigan Ave.
Levenson, Joseph M., 6254 South Ashland Ave.
Lodato, Victor, 1601 Halsted St., Chicago Heights.
Love, A. I., 3347 Wilson Ave.

McDaniel, Paul, 2608 Lakeview Ave.
McLean, Dan R., 4359 West Division St.
Macaluso, Leonard A., 3620 North Magnolia Ave.
MacDonald, Hugh, 912 Glenwood Lane, Glenview.
Madden, Earl E., 7350 South Phillips.
Magnus, A. B., Central Rd., Arlington Heights.
Malanca, Francis X., 1841 S. 51st Ct., Cicero.
Mark, Samuel J., 5834 North Bernard Ave.
Markin, Leonard E., 25 E. Washington St.
Mason, Frank N., 1246 West Jarvis Ave.
Meyer, Herschel, 41 S. Central Park Ave.
Miller, Louis J., 2021 North Whipple St.
Modzikowski, Thaddeus A., 8019 Kingston Ave.

Neiman, Aaron, 4010 West Madison St.
Nigro, Salvator, 3655 West Chicago Ave.
Norris, Millard F., Pawnee, Illinois.

Pachynski, Bernard L., 7350 Oglesby Ave.
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Petrone, Joseph A., 1958 Grand Ave.
Pitzaferro, John J., 323 S. Ashland Ave.
Plucinski, Stanley J., 6110 S. 75th Ave., Argo.
Przygocki, S. F., 4868 Warner Ave.
Puntenney, Irving, 720 North Michigan Ave.

Rampona, Louis E., 6 North Michigan Ave.
Ricci, Henry N., 4506 West End Ave.
Ricewasser, Henry, 6156 North Winthrop Ave.
Robinson, Harry Marchmont, 8333 Indiana Ave.
Romanski, Arthur F., 2332 S. Highland Ave., Berwyn
Rosanova, Albert R., 1241 North Keeler Ave.
Rosen, Isaac, 5209 Ingleside Ave.
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Shapiro, Bernard, 4760 North Bernard St.
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Simonelli, Mario, 2516 N. Harlem Ave., Elmwood Pk.
Smialek, John M., 2200 Walton Ave.
Sneider, Milton J., 2756 North Kimball Ave.
Spackman, Ross H., (Address Unknown)
Spector, Israel H., 5419 Greenwood Ave.
Steinberg, Frederick B., 29 East Ohio St.
Steinhoff, Carl F., 6134 North Washtenaw Ave.
Stenn, Arthur, 1811 West 47th St.
Straus, Francis H., 1312 Astor St.
Strich, Arthur J., 3350 West Diversey Ave.
Stupnicki, Joseph, 3103 South Morgan St.
Sullivan, Donald G., 9807 South Leavitt St.
Sullivan, Francis J., 804 Waukengan Rd., Glenview.

Tauber, Sydney Wm., 3958 West Chicago Ave.
Thomsen, Philip G., Dolton, Illinois.
Trapp, Anthony N., 1450 Winona Ave.,
Tsoulos, George D., 6534 Stony Island Ave.
Turek, M. H., 4010 West Madison St.

Urkov, Joseph C., 55 E. Washington St.
Uthoff, Carl J., R. F. D., Lowell, Oregon.

Van Dellen, Theodore R., 303 E. Chicago Ave.

Waters, Carl F., 5711 West Chicago Ave.
Weiskopf, Henry Sol, 1610 West 5th Ave, Gary, Ind.
Wicks, Mark, 1019 Bryn Mawr.
Wieneke, Carter H., 1356 Greenleaf Ave.

Zanette, Alfred A., 4959 West Chicago Ave.

VIEWS OF ILLINOIS LEGISLATORS ON THE WAGNER-MURRAY-DINGELL BILLS

In order that we might ascertain the views of many members of Congress from Illinois, the following letter was sent to the Senators and Representatives from this state under date of October 6, 1945.

"The Medical Profession of Illinois, is, as you know, overwhelmingly opposed to the program of state medicine proposed by the compulsory 'health insurance' features of the Wagner-Murray-Dingell Bills. They see in that program the groundwork for a system of socialized or government controlled medicine unparalleled in history.

"The profession of Illinois is greatly inter-

ested and much concerned as to the attitude of the United States Senators and Representatives from Illinois upon this vital issue. So that the membership of this society may be more fully and currently informed as to the views of their members of the Congress upon this subject, we are inviting each Senator and Representative to give us an expression of opinion for publication in the November 1945 issue of the Illinois Medical Journal. The printer's 'deadline' for that issue is October 24, 1945.

"Whether American Medicine shall or shall not be socialized is a question of transcendent importance, not only to the medical profession, but to the rank and file of the American People. An expression of your views in the matter would be greatly appreciated."

Realizing that members of Congress have been unusually busy since their vacation recess, and that only a short amount of time was permitted them to get their reply back to the editor, only 12 replies were received by October 24, but we will most likely hear from many more in the coming weeks.

Senator Lucas stated "with respect to the Wagner-Murray-Dingell Bills, candidly I do not know all the details contained in these bills. I do not know what amendments will be offered, if and when the legislation reaches the floor of the Senate. It is impossible for any one Senator to consistently advise his constituents what his views are upon complicated bills until a particular measure is perfected through amendments. I have always been opposed to socialized medicine. I see no reason for changing my viewpoint at this time. It must be remembered, however, that the Wagner-Murray-Dingell Bills, as I know them, contain more than that one point."

Rep. Rolla C. McMillen of the 19th District stated: "Your letter of October 6th regarding the Wagner-Murray-Dingell Bills has been received, and I was glad to have the opinion of your profession on this legislation. I am inalterably opposed to socialized or government controlled medicine and you may be assured that I will vote against such a measure if it reaches the Floor of the House."

Rep. Emily Taft Douglas, Member at Large, replied: "You may rest assured that I am studying the bill in question very carefully and that I am seeking information from all competent sources. I am collecting the opinions of the various medical societies on the bill and I am giving careful weight to them."

Rep. Everett M. Dirksen of the 16th District wrote: "Let me express my thanks and appreciation for your note of October 6 in which you indicate the opposition of the profession to the health features of the pending Wagner-Murray-Dingell Bill. I presume you have been informed that the bill is pending before the Finance Committee of the Senate Ways and Means Committee of the House and has as yet received no committee action. Be assured that I shall be on the alert and give it sustained and careful attention."

Rep. Robert B. Chiperfield of the 15th District stated: "This will acknowledge receipt of your letter concerning the Wagner-Murray-Dingell Bills. I have publicly stated I am opposed to the program of state medicine as proposed in this pending legislation."

Rep. Jessie Sumner of the 18th District wrote: "Thank you for your letter. I am opposed to the Wagner-Murray-Dingell Bill."

Rep. Melvin Price of the 22nd District stated: "I have your letter of October 6th on behalf of the Illinois Medical Journal containing your expression of views regarding the Wagner-Murray-Dingell Bill, S. R. 1060. Thank you very much for your interest in writing to me in this matter. Your opinions are deeply appreciated. May I extend to you the facilities of this office at any time they may be helpful."

Rep. L. C. Arends of the 17th District stated: "I will immediately answer your letter of October 6th, wherein you ask what my views are concerning the Wagner-Murray-Dingell Bill, S. R. 1060 and H. R. 329, which bills if passed would create the socialization of medicine. For your information, I am opposed to socialized medicine and have so advised my local medical organizations in the 17th Congressional District."

Rep. Ralph E. Church of the 10th District wrote: "I am in receipt of your letter of October 6th with reference to the opposition of the medical profession of Illinois to the so-called Wagner-Murray-Dingell Bills. I have always opposed the regimentation of any profession and that includes the medical profession especially."

Rep. Anton J. Johnson, of the 14th District wrote: "I have your letter of October 6th rela-

tive to the Wagner-Murray-Dingell Bill. I concur with your views that if this program is put into effect it will be more or less a system of socialized or government controlled medicine unparalleled in history. You may be assured I shall oppose any such program. Thanking you for your interest in this matter, I am"

Rep. N. M. Mason of the 12th District wrote: "This will acknowledge receipt of your letter of October 6 relative to the Wagner-Murray-Dingell Bills. I am opposed to the socialization of medicine and hospital care, and therefore expect to oppose the passage of these measures."

Rep. Charles W. Vursell of the 23rd District wrote: "I am against the bill and have been against all bills tending toward the socializing of medicine. In fact, if you will look up my record you will find that I might well be classed as a 'Tory', or an 'Economic Royalist'. However, I am neither. I am for sound Government, believe we have done pretty well up to date, am against a one world philosophy, and don't want to suddenly remake America."

We realize the difficulty of our Legislators giving a definite statement relative to the Wagner-Murray-Dingell Bill with its approximately 185 pages, and covering so many subjects, one of which is the medical care program, this being the one which is of paramount interest to the medical profession. We also realize that in opposing such a measure, we should be prepared to offer a substitute plan which would give adequate medical care to those in low income groups, preferably a plan to give this care on a prepayment basis.

It is hoped that a prepayment medical care plan will be in operation in this state in the near future, and for many months a special committee has been making intensive investigations of all plans now in operation, and through frequent reports of progress to the Council, some definite decisions have already been made.

We are grateful to those Legislators who have responded to our letter, realizing that never in the history of this country has our Federal Congress had so many important decisions to make, and so much business to transact. Comments on replies to be received later will be published in the Illinois Medical Journal at an early date.

THE DEVELOPMENT OF ROENTGENOLOGY DURING FIFTY YEARS

Although considered one of the youngest of specialties in Medicine, Roentgenology is actually fifty years old, for it was in 1895 that William Conrad Roentgen discovered the x-ray. This branch of Medical Science has indeed gone a long way from the crude, static machine to the ultra modern types seen everywhere today. It is most fitting that the period from November 5 to 10 has been selected to give proper recognition to this 50th anniversary and to familiarize the public with the use of x-ray as a diagnostic and therapeutic instrument.

Many physicians will recall that the early use of x-ray was restricted principally to the recognition of foreign bodies in human tissue and to recognize the presence of fractures. Today in both diagnostic and therapeutic considerations, every part of the human body is indeed accessible to its many services.

The proper correlation of roentgenological and clinical findings has made x-ray indispensible in the daily routine examinations. Chest roentgenograms have materially simplified the early diagnosis of tuberculosis and other chest diseases; visualization of the gastro-intestinal tract, genito-urinary tract, biliary tract, and all other parts of the human body have added materially in accumulating clinical data.

Recent developments in bone surgery and especially in connection with osteomyelitis and bone tumors were largely brought about through the use of modern x-ray equipment. More recently it has been used extensively in hematology and especially in connection with the treatment of chronic leukemia, where many gratifying results have been obtained.

In considering this fiftieth anniversary of the discovery of x-ray by Roentgen, it is most fitting indeed, that tribute be paid to those thousands of men in this branch of medical science who have developed the field and at a great risk, for it has not been within the entire fifty year period that modern safeguards have removed the dangers to the investigators and operators of x-ray equipment.

Physicians everywhere should cooperate in the celebration of this anniversary and during the period of November 5 to 10, utilize every opportunity to tell friends of the value of this important branch in modern medical work.

Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago, Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, Jacob M. Mora, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick, Lt. Col. MC, William J. Bryan, John R. Vonachen.

PROBLEM IN THE PRESENT DAY PRACTICE IN OBSTETRICS IN THE STATE OF ILLINOIS

MILTON E. BITTER, M.D.

In October 1942 the Emergency Maternity and Infant Care Program came into active being in this State. When it was originally introduced, and it is a part of the record, the Chief and the Associate Chief of the Children's Bureau gave repeated assurances that the EMIC Program was distinctly a war emergency measure which would cease to function six months after the close of hostilities.

The members of the Maternal Welfare Committee of the State of Illinois and also the members of the Advisory Committee to the State Department of Maternal and Child Welfare agreed to accept this Program in good faith and assume it as an educational as well as a patriotic duty. Those who hesitated to believe all the promises made at that time need make no apologies for their skepticism for we have ample proof today that it was only another "camel's nose under the tent" program, as evidenced recently by the introduction of Senate Bill 1318.

The Maternal Welfare Committee of the State of Illinois had long before set up and had established an educational program to insure better obstetrics for the entire State and to assure the men in the Armed Forces that their wives and infants would receive better care.

Adoption of the EMIC Program by the medical men of this State entailed a tremendous amount of clerical work, besides much delay in collecting fees — and then having the fees, in many instances, slashed due to restrictions and misunderstandings.

I believe the medical men of the State have done an excellent job of cooperating, but now that hostilities have ceased we are being confronted with an honest-to-goodness super-duper plan proposed in the Maternal and Child Welfare Act of 1945. In my opinion, the proposed legislation, by the powers that be, is hastening the regimentation of the United States and is making permanent, by congressional action, the EMIC Program. In looking over this Act you find that the State Departments of Public Health are to be the subsidiary accomplices in the carrying out of these concepts.

The Advisory Committee to the Department of Maternal and Child Welfare, of which I am a member, has about one per cent recognition in this matter. It is interesting to note that the Associate Chief of the Children's Bureau is Dr. Martha Eliot. It is interesting to note that this Senate Bill 1318 was referred to the Senate Committee on Education and Labor, of which Senator Murray of Montana is Chairman. It is also interesting to note that the recommendations in support of this Bill were formulated mostly by representatives of labor interest and social workers, and that only two of the nine division directors are Doctors.

Evidence of resentment by the doctors toward the EMIC Program is widespread, yet few of the sponsors of this Program appreciate the fact that such a condition exists. Others, holding this resentment, don't take an active part in curbing its progress.

★ BUY VICTORY BONDS ★

State Department of Public Health

THE YEAR'S ADVANCEMENT IN PUBLIC HEALTH

ROLAND R. CROSS, M.D., DIRECTOR

The enactment of a good deal of important legislation; considerable progress in the development of county health departments and improvement in the infant and maternal death rates characterized the year ending June 30, 1945 as one of the most eventful in the public health history in Illinois. Although it was the third year of active warfare for the Nation, health conditions generally in the State were favorable both as to the prevalence of communicable diseases and mortality experience.

The new developments are regarded as particularly significant on the grounds that they reflect the cumulative effect of popular interest in public health service which has been growing rapidly in recent years. A sizeable increase in the appropriations to the Department, for example, and the passage of laws that are described in some detail below, took place without important controversy or challenge in the General Asembly. Not a few members of the General Assembly, moreover, expressed favorable interest in larger appropriations than called for in the budget of the Department of Public Health, especially as to the control of tuberculosis and cancer. These observations imply strong popular favor inasmuch as the legislators are sensitive to public opinion.

The movements that brought into existence the county health departments where they have been established under the provisions of the new law, and where the proposition of creating such departments is pending, were initiated locally for the most part. This implies fundamental public interest in organized community effort for health protection and also confidence on the part of the people in the county health department proposition, as recommended by the State Department of Pubilc Health.

LEGISLATION

An appropriation of $2,162,000 was made for the construction in Springfield of an office building to house the Department of Public Health. Approximately $77,000 had been obtained from the Federal government to be applied toward the costs of architect's plans and specifications for this project. At the end of the year, the plans were well advanced toward completion and the site of the building had been selected. Acquisition of the property remained to be accomplished before all would be ready to start construction work.

An appropriation of $3,850,000 for the construction of five tuberculosis sanitariums and $150,000 for the acquisition of sites therefor was made. In the appropriation Act it was specified that four of the sanitariums were to be located down-state and one in Cook County. Plans call for allocating the money equally between Cook County and the remainder of the State so that the number of beds in the Cook County institution would be equal to the combined total in the four down-state ones.

The regular appropriation to the Department of Public Health was $4,121,088. The principal new feature is an item of $250,000 for grants-in-aid to county health departments. The total appropriation is $880,105 higher than two years ago, $490,568, representing money needed to comply with new and higher salary ranges established by the General Assembly.

A new law requires that nursing homes be licensed by the Department of Public Health on the basis of minimum standards as to sanitation, hygienic features, diet and personnel. This legislation came about as the result of popular interest that expressed itself in an organized effort favoring a licensing law.

The law in relation to hotels and inns was amended so as to require the Department of Public Health to establish and enforce minimum standards as to sanitary facilities. The definitation of hotels was changed so as to include all places that maintain rooms for hire to transient lodgers. This legislation was initiated by the railroad brotherhoods with the end in view of improving sanitary conditions in the lodging houses and hotels at railroad terminals maintained especially to accommodate railroad employees.

The laws relating to the sanitation of pasteurized and grade A milk supplies were rewritten, simplified and so worded as to raise the minimum standards of sanitation.

A law was passed that permits cities of less than 100,000 population to levy a special tax to cover the operating expenses of sewage treatment plants. This specific method of financing operation should encourage the construction of such plants in the 80 odd municipalities where they are now needed to abate the pollution of streams.

Several other new laws were passed and other laws amended that affected the Department of Public Health but were of less importance than those referred to above.

COUNTY HEALTH DEPARTMENTS

During the year a popular vote was taken on the proposition of establishing a county health department and levying a tax therefor in each of five counties. The result was favorable by a substantial margin in Adams, DuPage, McLean and Montgomery counties. The proposition failed curiously to carry in St. Clair. Although the total vote in the county was heavily favorable, the vote outside the East-Side Public Health District, (which includes East St. Louis) was unfavorable and caused the proposal to fail inasmuch as the law requires a favorable vote both within and outside a Public Health District when one exists in a county.

Interest in establishing health departments is active in a number of other counties. The outlook for rather rapid developments along this line is promising. It is anticipated that efforts will be made to place the proposition on the ballot in twenty or more counties during the biennium.

HEALTH CONDITIONS

The infant death rate, believed by competent observers to be one of the most sensitive and accurate indexes to prevailing health conditions, was lower in the calendar year of 1944 than in any previous year of record in Illinois. The rate was 32.4 per 1000 live births reported against a previous low of 33.0, the figure for 1942.

The maternal death rate, likewise considered a sensitive index, was also lower than in any previous year of record, 1.8 deaths per 1000 live births reported against the previous low of 1.9, the 1942 figure.

It seems probable that the medical and hospital care provided at Government expense for the pregnant wives and infant children of enlisted men in the armed forces had a favorable influence over the health and death rates among child-bearing mothers and babies. Care was provided for 21,739 mothers and for 2,243 babies during the calendar year of 1944 through the administration of the Emergency Maternity and Infant Care program. While this number is only about one-sixth of all the births that took place in the State in 1944, the care given was the best available and probably raised significantly the average standard of care received by all.

The general death rate of 11.42 per 1000 estimated population was somewhat higher than the experience in some previous years. Two factors may be partly responsible for the higher rate. Large numbers of young men were withdrawn from the civilian population into the armed forces, leaving behind the older people among whom a higher mortality prevails. The estimate of the population may not be as accurate as during normal peace time. If it was low, the rate is proportionately higher than it should be. In any event the rate is by no means excessive and indicates generally favorable conditions.

There were no unusually wide-spread or devastating epidemic outbreaks of communicable diseases.

PERSONNEL

The shortage of personnel was still acute at the end of the year, especially as to medical officers and sanitary engineers. Through con-

tinuous and diligent efforts at recruitment, on the other hand, the strength of the nurses has been raised somewhat above the pre-war level. Gains have been made also as to public health educators. Special training at various schools of public health has been provided on an all-expense scholarship basis for a considerable number of nurses and for health educator trainees. The Department's own training course for laboratory specialists was continued through the year. By these methods the over-all strength of the Department's personnel has been maintained throughout the war years at a considerably higher level than seemed likely in the early days of the war.

SERVICES

The program and activities of the Department remained on a war-time basis. The several Defense Zone Health Departments were maintained at the maximum strength permitted by the resources of the Department. These services were concentrated in areas of exceptional military importance and appear to have fulfilled to a high degree their purpose of protecting the health of large populations engaged in work essential to the war effort. It is expected that when the war ends the people concerned will have been sufficiently impressed by the operation of the Defense Zone Health Departments and the beneficial results thereof that many if not all of these departments will be retained on a permanent basis by appropriate action as local health departments.

Looking forward to the post-war period, plans for expansion and intensification of services in conformity with recognized and anticipated needs and resources have been projected. These plans revolve around the development of strong, adequate local health departments and particularly county health departments. It is believed that only through the efficient operation of good local health departments can the maximum potential benefits from public health service be enjoyed.

ACCOUNTS

Of $3,232,850.00 appropriated by the State General Assembly for the operation of the Department of Public Health during the biennium ended June 30, 1945, there was an unexpended balance of $43,758.17 or a little more than one per cent. Of the lapsed sum, $20 000 was appropriated specifically for the establishment of mother's breast milk centers which, owing to war conditions could not be done during the biennium. Another item of $6,800 resulted from a vacancy in the position of Assistant Director and was not available to the Department for expenditure inasmuch as appropriations for salaries of State officers is made to the Department of Finance. Thus the lapse of expendable funds appropriated to the Department was $16,958.17.

The Federal government allotted to the State Department of Public Health for the fiscal year ended June 30, 1945 for general public health purposes, $1,231,709.27 of this amount $525,-236.00 was for general public health purposes; $380,422.03 for venereal disease control; $62,-250.00 for tuberculosis control; $263,801.24, for maternal and child hygiene activities. A substantial proportion of the funds obtained from Federal sources was reallotted to local full-time health departments. Of the money allotted by the Federal government $66,770.59 remained as an unexpected balance at the end of the year. Of this sum, $66,686.35 was from the Childrens' Bureau and earmarked for maternal and child hygiene services only. Owing to the shortage of personnel on the one hand and the overwhelming task of administering the FMIC program, the lapsed funds could not be used advantageously.

The Division of Maternal and Child Hygiene spent a major part of its strength in the administration of the Emergency Maternity and Infancy Care Program. The Congress appropriated funds to the U. S. Childrens' Bureau for the specific purpose of providing medical and hospital care for the pregnant wives and infants of enlisted men of specified ranks in the armed forces. The Childrens' Bureau had the responsibility of making the rules. The State Department of Public Health had the job of administering the project in Illinois. During the fiscal year ended June 30, 1945 a total of $2,263,619.73 was spent for that purpose by the State Department of Public Health in Illinois. Payment was made for medical and hospital care for 19,767 women and for 3,269 babies during the fiscal year.

THE PHYSICIAN'S RESPONSIBILITY IN BIRTH REGISTRATION

The Statutes relative to the registration of births and deaths which became effective in 1915 provide as follows in connection with birth registration:

"All births that occur in the State shall be immediately registered in the districts in which they occur, as hereinafter provided. The attending physician or midwife shall file a certificate of birth, properly and completely filled out, and in a form prescribed by the Department of Public Health, with the local or sub-registrar of the district in which the birth occurred within ten days after the date of birth. If there be no attending physician or midwife, then the father, or in case of death or absence of the father, the mother, and in the event of the death or disability of the mother, the householder where the birth occurred, shall file the certificate of birth with the local registrar within ten days after such birth; or if the birth occurred in a public or private institution, the manager or superintendent of such institution shall file with the local or sub-registrar a certificate of such birth, properly and completely filled out as herein required."

It is noted in the above provision that the birth attendant, either the physician or midwife, is required to file a certificate of birth "properly and completely filled out" within ten days after the date of birth.

During the period following this country's entrance into the war up to the present time people in all walks of life have been required to produce certifications of their birth records. Such certifications were necessary particularly where individuals were employed or desired employment in defense plants in connection with the war effort, or where they were entering some branch of the service.

Upon request the Department of Public Health, in those cases where there was a birth record on file, issued a certification of such record upon the payment of the statutory fee. In a great many cases these certified copies were returned to the Department with information that certain items shown by the certificate were incorrect and the certification was, therefore, of no value to the person because of that fact.

The principal incorrections noted were the spelling of surnames in the case of the individual himself and of his parents, and also a wrong given name or names. Other items that were in error were often times dates of birth and the birthplaces of the parents of the individual. Occasionally a record was returned because the sex shown upon the certificate was wrong. In some cases where the certificate showed the sex as female the name of the individual indicated that the item was incorrect.

Prior to July of 1943 there was no provision in the statutes that allowed the correction of birth records and consequently in many cases because of the fact that the certificate could not be corrected, the individual met with difficulty in obtaining employment or in entering some branch of service.

After the statutes were amended allowing the correction of records, such work became of paramount importance and required the full time of several employees of the Division of Vital Statistics.

Corrections of records were only allowed to be made upon the basis of affidavits and proof submitted that the record was in error.

A survey of these incorrect records clearly indicated that the birth attendant or the person completing the birth record had been careless and had not complied with the requirements of the law in seeing that the certificate was properly and completely filled out. The largest number of imperfect records were those where the births had occurred in a hospital. The reason for this appears to be that hospital attendants, that is, those employed in the maternity ward, assume the responsibility of completing the birth certificate insofar as possible upon the entrance to the hospital of the woman who is to be confined. After the confinement the routine procedure is, in most institutions, for the person in charge of the maternity ward or the assistant, to obtain the doctor's signature upon the birth certificate. In the majority of cases the physician, assuming that the birth certificate has been properly completed, attaches his signature without taking the precaution of checking the information on the record to ascertain whether or not it is correct. Therefore, a large number of certificates are prepared showing an incorrect spelling of the names. In addition to this sometimes a doctor will sign a certificate where the child is shown to be a female when in reality it is a male, or vice versa. It has also been demonstrated that in some cases the doctor has signed a certificate where the color of the child was in error, for

instance showing a child to be a Negro when in reality it was a white child.

Such errors now found in birth records could have been avoided if the physician had complied with the requirements of the law in seeing that the certificate was "properly and completely" filled out.

The responsibility of the physician in connection with births and his obligation to his client should not be considered terminated upon the delivery of the child. Physicians should feel obligated in all such cases, in addition to bringing the child into the world, to see that there is a proper birth record prepared for filing.

An individual's birth record may be considered as the deed to the name that he bears, and as he may be required to produce such document or deed in court or in various other places, the birth certificate should not contain any errors that would render it of no value.

As to preparing birth certificates in hospitals, where most of the errors arise, the Department of Public Health has considered a plan by which such mistakes could be minimized. This plan would require the person who prepares the certificate, prior to obtaining the doctor's signature, to present the certificate to the mother before confinement, or as soon as possible afterward, in order that she might survey the information on the certificate and in that way detect any errors in the spelling of names or with regard to other items required to be completed on the certificate.

After the certificate has been surveyed the prospective mother would be required to attach her signature at a designated place for the purpose of authenticating the information prior to the signing of the certificate by the physician and the filing of the certificate as a permanent record.

In the case of a birth occurring in the home, there are fewer errors to be found in the preparation of the birth certificate. The reason is that in the case of such births the doctor himself assumes the responsibility, as he should, of completing the birth record. Comparatively few birth records where the birth occurred in the home and the certificate had been prepared by the physician at the time of occurrence of the birth or immediately afterwards are returned to the State Department of Public Health for correction. This in itself is proof that if the physician will comply with the provisions of the statutes relative to birth registration and assume the responsibility personally of completing the certificate rather than leaving it to some other person, there will be many less errors and therefore less inconvenience and even losses in later life to the babies concerned and less cost to the taxpayers for the work involved in the correction of the birth certificates after they have been filed with the State Department of Public Health.

HEART REST AT SEA LEVEL

If you want to give your heart a rest, get down to sea level.

"Descent to sea level from a high altitude does afford some rest for the heart," the June 16 issue of *The Journal of the American Medical Association* explains in its Queries and Minor Notes department.

It is calculated that at 15,000 feet the heart works about 20 per cent harder to accomplish 20 per cent less work than at sea level. The pressure of the air at higher altitudes is much less than it is at sea level, and therefore the pressure of the oxygen which is breathed in is also decreased. For this reason, the heart has to work harder to supply the necessary oxygen to the tissues. Even climbing in a plane from sea level to 8,500 feet increases the work of the heart. However, *The Journal* says, "few instances of serious consequence, even in those who have heart disease, have ever been reported as a result of airplane flights."

Correspondence

REFRESHER COURSES STARTED AT UNIVERSITY OF ILLINOIS

Refresher and special post-graduate training for physicians and surgeons returning to civil practice from the armed services is under way at the University of Illinois College of Medicine.

The first one-week to three-month refresher courses for specialists already has been offered. The first three-month refresher course for general practitioners started Nov. 1 with 40 enrolled. Forty-six residencies for long-term specialist training and a number of research fellowships have been awarded.

The program, financed with the aid of a $90,000 three year grant from the W. K. Kellogg Foundation, is receiving nation-wide attention, according to Dr. Raymond B. Allen, dean of the University's colleges in Chicago. Wide interest is being shown by doctors in the services. Ten veterans have already enrolled for the second three-month course to be offered February 1.

The training was launched to help fill needs revealed by a survey of 21,000 doctors in uniform. Sixty per cent said that on demobilization they wished to take long-term courses leading to specialization, and more than one-fifth wanted short "refresher" courses before returning to civil practice.

The three-month basic training short course in medicine was planned especially for medical veterans planning to take up general practice, and consists of a review of important information in all of the specialties; particular attention will be given to the improvements in diagnosis and treatment discovered during the past few years.

Enrollment is limited to 40 at one time. Veterans will be given preference in enrollment, but civilian doctors also are eligible.

Dean Allen especially urges that "all graduates of wartime accelerated medical courses, who had only nine months of internship, should return for three or six months more of training in this type of course."

The University also is offering refresher courses for specialists. One-week courses in ophthalmology and in bronchoscopy already are under way. Other such courses may run up to three months in length.

These short courses are specifically refreshers and not to train specialists. Fields in which they will be offered, in addition to ophthalmology and bronchoscopy, will include pediatrics, obstetrics, internal medicine, surgical diagnosis, psychiatry, and orthopedics. Clinical and laboratory instruction will be emphasized in these courses.

To meet the demand for training new specialists, the university established 46 new residencies, which are appointments for doctors to live and work in University-connected hospitals to combine study and practice. These men have opportunity to specialize in any one of 15 fields. The University also established additional long-term research fellowships for specialist study.

PHI RHO SIGMA SCHOLARSHIP AWARDS

A year ago the plan for Phi Rho Sigma Scholarship Awards was announced, and the first awards were presented by Dr. Howard B. Carroll, president of the Medical Division, Northwestern University Alumni Association, and also, president of the Alpha Association of Phi Rho Sigma fraternity, at the Founders' Day con-

vocation held in the Archibald Church Library, Tuesday morning, October second, at ten-thirty o'clock.

The awards were made possible through the generosity of a loyal alumnus, Dr. George James Dennis, who did not wish to be named during his life time, but who did not live to see the fruition of his generosity. It was Dr. Dennis' desire that some stimulus for scholarship be made through his medical fraternity, and that a suitable tablet be placed in the Archibald Church Library as a constant reminder to this end.

A tablet, designed and executed by Miss Mary M. Webster, a noted sculptress, has been placed in the library. The plaque is in plaster now, due to present conditions, but is to be cast in bronze in the near future. Emblazened upon it are some of the works of medicine's immortal men, and there is space for the names of the recipients of the awards for many years to come; these names will be added annually.

There are three awards as follows:

The first award is presented to the student who has maintained the highest scholastic average during his first three years at Northwestern University Medical School. The award of one hundred dollars, and a certificate of recognition, was presented to Mr. Edward Vaughan Johnston, the recipient this year.

The second award is offered to the National medical fraternity at Northwestern University Medical School having thirty or more active members enrolled as regular students, which has maintained the highest scholastic average during the preceding year. The winning fraternity this year was Phi Delta Epsilon, and the fraternity received a framed certificate.

The third award is given to the man in the winning fraternity who has been chosen by his fraternity as the student to have contributed most toward winning the award. The man chosen by Phi Delta Epsilon was Mr. Nelson Lionel Portnoy who received an award of fifty dollars, and a certificate of recognition.

To the Members of the WOMAN'S AUXILIARY:

In a little less than twenty-seven years our nation is again entering a post-war era.

The work to be done with its responsibilities, efforts and planning, both mental and physical is tremendous as well as limitless. Of this great task, every profession, industry, organization, association, etc. must accept and do its share.

Since the organization of the Woman's Auxiliary to the Medical Profession, they have worked diligently and with success, and will continue to do so with increasing success. In order to accomplish the most good and thru the proper channels, we must have an incentive and a program. This is given us thru the medium of our own BULLETIN of the Woman's Auxiliary to the American Medical Association. Not only officers, but every member of the Auxiliary should be a permanent subscriber to this valuable publication.

The information of auxiliary aims, participation in community, state and national affairs, programs, suggestions and advice published therein is vitally necessary to all branches and members.

An efficient officer or member of any organization is always the well informed one. Are you?

Sincerely yours,
Mrs. Reinhold E. Johnson
BULLETIN Chairman

Medicine's Role in the War Effort

WORK OF MEDICAL DEPARTMENT IN WORLD WAR II

In his Biennial Report to The Secretary of War, General George C. Marshall, Chief of Staff of the United States Army, paid tribute to the Medical Department for its outstanding work in World War II, as follows:

"The remarkable reduction in the percentage of the deaths from battle wounds is one of the most direct and startling evidences of the great work of the Army medical service. In the last two years Army hospitals treated 9,000,000 patients; another 2,000,000 were treated in quarters and more than 80,000.000 cases passed through the dispensaries and received outpatient treatment. This tremendous task was accomplished by 45,000 Army doctors assisted by a like number of nurses and by more than one-half million enlisted men, including battalion-aid men, whose courage and devotion to duty under fire has been as great as that of the fighting men they assisted.

"One of the great achievements of the Medical Department was the development of penicillin therapy which has already saved the lives of thousands. Two years ago penicillin, because of an extraordinarily complicated manufacturing process, was so scarce the small amounts available were priceless. Since then mass production techniques have been developed and the Army is now using 2,000,000 ampules a month.

"Despite the fact that United States troops lived and fought in some of the most disease-infested areas of the world, the death rate from non-battle causes in the Army in the last two years was approximately that of the corresponding age group in civil life — about 3 per 1,000 per year. The greater exposure of troops was counter-balanced by the general immunization from such diseases as typhoid, typhus, cholera, tetanus, smallpox, and yellow fever, and, obviously, by the fact that men in the Army were selected for their physical fitness.

"The comparison of the non-battle death rate in this and other wars is impressive. During the Mexican War, 10 per cent of officers and enlisted men died each year of disease; the rate was reduced to 7.2 per cent of Union troops in the Civil War; to 1.6 per cent in the Spanish War and the Philippine Insurrection; to 1.3 per cent in World War I; and to 0.6 per cent of troops in this war.

"Insect-borne diseases had a great influence on the course of operations througout military history. Our campaigns on the remote Pacific Islands would have been far more difficult than they were except for the most rigid sanitary discipline and the development of highly effective insecticides and repellents. The most powerful weapon against disease-bearing lice, mosquitoes, flies, fleas and other insects was a new chemical compound commonly known as DDT. In December 1943 and early 1944, a serious typhus epidemic developed in Naples. The incidence had reached 50 cases a day. DDT dusting station were set up and by March more than a million and a quarter persons had been processed through them. These measures and an extensive vaccination program brought the epidemic under control within a month. Shortly after the invasion of Saipan an epidemic of dengue fever developed among the troops. After extensive aerial spraying of DDT in mosquito-breeding areas, the number of new cases a day fell more

than 80 per cent in two weeks. The danger of scrub typhus in the Pacific Islands and in Burma and China was reduced measurably by the impregnation of clothing with dimethyl phthalate.

"The treatment of battle neurosis progressed steadily so that between 40 and 60 per cent of men who broke down in battle returned to combat and another 20 to 30 per cent returned to limited duties. In the early stages of the war less than 10 per cent of these men were reclaimed for any duty.

"The development of methods of handling whole blood on the battlefield was a great contribution to battle surgery. Though very useful, plasma is not nearly as effective in combating shock and preparing wounded for surgery as whole blood. Blood banks were established in every theatre and additional quantities were shipped by air from the United States, as a result of the contribution of thousands of patriotic Americans. An expendable refrigerator was developed to preserve blood in the advanced surgical stations for a period of usefulness of 21 days.

"So that no casualty is discharged from the Army until he has received full benefit of the finest hospital care this Nation can provide, the medical service has established a reconditioning program. Its purpose is to restore to fullest possible physical and mental health any soldier who has been wounded or fallen ill in the service of his country.

"To insure that men are properly prepared for return to civilian life the Army established 25 special convalescent centers. At these centers men receive not only highly specialized medical treatment, but have full opportunity to select any vocational training or recreational activity, of both, they may desire. Men, for example, who have been disabled by loss of arms or legs are fitted with artificial limbs and taught to use them skillfully in their former civilian occupation or any new one they may select. Extreme care is taken to insure that men suffering from mental and nervous disorders resulting from combat are not returned to civil life until they have been given every possible treatment and regained their psychological balance."

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ARMY MEDICAL DEPARTMENT GETS SIX PER CENT OF WORLD WAR II DECORATIONS

Of the 1,400,409 decorations given in World War II in recognition of meritorious service and gallantry, six per cent were received by Medical Department personnel, according to a biennial report by General George C. Marshall. These figures are exclusive of the Air Medal and the Purple Heart.

NEW ORAL PENICILLIN TABLET

Hoffman-La Roche, Inc., of Nutley, N. J. recently announced to the medical profession Per-Os-Cillin—a new oral penicillin tablet. The advantages of this preparation are of considerable clinical significance. Due to the presence of special long-acting buffers in Per-Os-Cillin, the destructive action of gastric acid upon penicillin is inhibited and a therapeutically effective blood level of the drug is rapidly obtained—usually within 30 minutes after administration. Per-Os-Cillin is stable and retains its potency for a period of not less than 9 months. Like all oral penicillin preparations, Per-Os-Cillin should be stored at a temperature not exceeding 15° C. (59° F.). However, there is no likelihood of a loss of potency when Per-Os-Cillin is kept at room temperature for short periods. Thus ambulant patients can carry the prescribed daily dose in pocket or purse, if necessary. Per-Os-Cillin is available in the form of small, smooth tablets which are easily swallowed even by fastidious patients. Each Per-Os-Cillin tablet contains 25,000 units of penicillin calcium in combination with specially selected buffers.

To whatever school of social philosophy one belongs, the fact remains that it is the private physician who sees the largest number of persons in need of medical counsel. The physician knows by training and experience that the early manifestations of pulmonary tuberculosis are protean. A good percentage of his patients have one or more of these symptoms. Many others deserve x-raying on general principles because of physiological states conductive to activation of tuberculosis. William Courtney Douglass, M.D., NTA Bull., May, 1945.

Original Articles

PLASTIC PROCEDURES ABOUT THE EYES

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General Considerations. — In considering the subject of plastic procedures about the eyes, I will not bore you with an extensive array of operations for similar conditions or trouble you with lengthy detail on the steps in many operations. In my opinion, however, there are certain basic principles which will bear re-examination and if kept in mind a measure of success and satisfaction can be derived from their application.

Plastic repair in any case involves a careful examination of the defects with methods of reconstruction based upon an attempt to restore the normal anatomy and physiology. Special care should be taken to see that no new deformity is added during the operation and the technique must always be made as simple as possible. In order to visualize the necessary steps in reconstruction a few minutes can be spent profitably reviewing basic anatomy.

The lids are essentially a fold of skin, cutaneous on the out side and lined with mucous membrane on the inside. Structurally, however, they actually consist of four planes or layers of tissue; skin, muscle, fibrous tissue, and conjunctiva.

The skin is both delicate and elastic and since there is no sub-cutaneous fat it is loosely adherent to the underlying muscle. This causes it to wrinkle in old age and accounts for the ease with which edematous fluid collects in it in inflammatory states. The muscles concerned are: Orbicularis oculi, lid levator, and smooth muscle of Muller.

The Orbicularis muscle consists of concentric placed muscle fibers which may be divided into palpebral and orbital parts. The palpebral fibers arise from the medial palpebral ligament and run under the skin and terminate to form the lateral palpebral raphe. This part of the muscle is used in gentle closure of the lids as in sleep and blinking. *The fibers near the border are the ones that hypertrophy in spastic entropion.* The Orbital portion of the muscle arises from the medial orbital margin and acts voluntarily on forced closure of the lids.

The lid levator arises from the apex of the orbital and inserts with a wide aponeurosis to the upper surface of the tarsus and orbital septum.

The fibrous layer is composed of orbital septum and tarsal plate. The former consists of thin elastic and connective tissue and is attached to the periosteum around the orbital margin. It serves as a barrier to the extension of extravasation in either direction.

The tarsal plates are composed of dense connective tissue and conform to the shape of the eye ball. The upper plate measures 10 *to* 12*mm.* in breadth and being D-shaped it is narrower at its junction with the palpebral ligaments. The lower tarsus is about *5mm. broad* and band shaped, the ends being continued as the medial and lateral palpebral ligaments.

Special attention must be given to the palpebral or canthal ligaments because they serve as anchors for the lids and peculiar abnormalities arise following this disinsertion.

Presented before the Section on Eye, Ear, Nose and Throat, Illinois State Medical Society, 104th Annual Meeting, Chicago, May 16, 1944

Both the medial and lateral ligaments are formed by the junction of the upper and lower tarsus. The medial inserts into the periosteum of the anterior lacrimal crest and frontal process of the maxilla. The lateral ligament is attached to the orbital tubercle of the Zygoma within the mid point of the lateral margin of the orbit.

The arteries and veins are likewise to be considered as landmarks which are to be avoided for bloodless surgery. Fortunately there are only six arteries and four veins of particular importance. They are:

Arteries

1. Frontal
2. Nasal
3. Angular
4. Facial terminal Br.
5. Suborbital
6. Anterior branch of Superior Temporal

Veins

1. Frontal
2. Facial
3. Superior temporal
4. Angular

Injury to The Eye Lids with Special Attention to The Angles and Canthal Ligaments. — This brief review of anatomy will help in the appreciation of certain principles which must be kept in mind in the repair of lacerated lids and injury to canthal ligaments. One common injury is the tear in the lower lid which starts near the inner canthus and extends down through the skin and oribularis fibers to the lower margin of the orbit.

As Wheeler[1] has pointed out ectropion may result in the repair of such wounds if the flap is not carried upward and backward to a point of over-correction. This is first done by closing the conjunctiva with interrupted silk and then using heavier silk for the tarsus and skin. The sutures should remain six to seven days.

Another frequent injury at the inner angle is one which frees the insertion of the canthal ligaments. Sometimes only one tarsal insertion is cut at the commissure of the lids where the fibrous attachment of the tarsus joins the wider medial palpebral ligament. I recently saw a patient with this type of deformity following an automobile accident. The medial palpebral ligament had been re-attached but the tarsal insertion of the upper lid remained free and the relaxation allowed the inner ⅓ of the upper lid to ride over the lashes of the lower lid to produce a chronic irritation and conjuntivitis. A good repair may be achieved by re-attaching the ligament according to the method of Wheeler.[2]

The importance of the canthal ligament has been demonstrated in another patient with a disinsertion of the external canthal ligament. This occurred in an advanced case of blepharochalasis and a marked cosmetic improvement was achieved by re-attaching the ligament with buried white silk. This is not especially difficult if an elliptical incision is made in the skin at the outer angle and the tarsus of the upper and lower lid attached to the periosteum at the normal site of insertion with separate strands of white silk suture.

Occasionally the repair of an injury or a plastic procedure may be facilitated by severing one or both branches of the outer canthal ligament. This is applicable in accidents where the inner canthus becomes displaced temporally and forward and the caruncle and semilunar fold are no longer visible. The cutting of the external ligament allows sufficient relaxation to reattach the inner canthus to the periosteum of the anterior lacrymal crest.

Replacement of Skin. — There are three types of grafts which may be used for replacing lost skin. The first or full thickness graft was originally suggested by Wolfe[3] in 1876, but it never received much attention from the opthalmologists until John Wheeler demonstrated its great value in blepharoplasty. The graft should be taken from the skin of the upper eye lid and a piece as large as 16 mm. by 40 mm., and occasionally as much as 25 by 50 mm. may be taken without fear of removing too much.

When skin from the upper eye lid is not available or an insufficient quantity is present, the next best is skin from the cephalo auricular angle. In extensive burns additional full thickness grafts may be taken from the inside of the thigh or flexor surface of the arm. The skin from the latter source is not desirable, however, as it is too thick, lacks elasticity and does not match as to color and texture. In cutting these grafts it is best to excise the skin either with a sharp Graefe knife or scissors, care being taken not to pinch the graft. Sometimes a traction suture can be used to good advantage when cutting the graft and any excess of connective tissue and fat

should always be removed before suturing in place.

The second type of graft is known as a pedicle flap and may be either of the sliding or interpolated type. Some men prefer them for the repair of defects but anyone who believes in the dictum that no new disfigurement should be added by the operator will naturally be a bit startled by the facial scars shown by Blaskovic, Imre, and others. In general, it may be said that pedicle grafts should be reserved for those cases in which there is a poorly nourished bony surface, a bone injury near the orbital margin with a scar filled base, insufficient conjunctiva and contracted sockets. When a pedicle graft is to be used, it should be secured from neighboring parts. Although each case is individual, there are three types that can be used to advantage.

The third type of graft is known as the epidermic graft and when properly cut it includes the superficial and deep layers of the epidermis. Considerable care and skill together with an extremely sharp razor is needed for the successful removal of such a graft. Most authorities agree that epidermic grafts should be reserved for extreme burns where it is impossible to use full thickness grafts.

Ectropion. — Ectropion is a condition in which either the upper or lower eyelid is everted so that the tarsal conjunctiva is exposed. With the exception of certain post-operative cases, it is convenient to divide ectropion into; Atonic, spastic, and cicatricial forms.

Atonic ectropion occurs in the lower lid, either from the relaxation of the orbicularis muscle as in seventh nerve paralysis or from the atrophy of the skin in patients past middle age. The latter is usually called senile ectropion and the overflow of tears, itching and irritation often becomes very troublesome. In very marked cases an exposure or lower marginal keratitis develops together with a muco purulent form of conjunctivitis.

The treatment is surgical. Ziegler's cautery puncture works well when there is only a slight eversion of the lid. A series of cautery punctures is made in the conjunctiva of the lower cul de sac 4 mm. below the lid margin and approximately 3 mm. apart. Care should be exercised so that the galvo-cautery penetrates the tarsal plate but does not pass through it.

In well advanced cases it is necessary to adopt a more radical procedure which usually means the resection of a portion of both tarsus and skin according to the method of Adams, Kuhnt, Miller, Blaskovic, Sattler, and others. Most of the procedures are a modification of Kuhnt's method in which a wedge-shaped piece of tarsus and conjunctiva, the apex of the wedge being downward, is removed from the lid. The redundant skin can be eliminated by the application of either Wheeler's[4] halving principles or the excision of a base up triangle of skin at the outer canthus according to the Szymanowski[5] modification.

In either case it is necessary to separate the skin and tarsus at the white line and continue the separation to the external canthus.

Spastic ectropion results from blepharospasm and is usually associated with severe conjunctivitis and orbital disease. Surgery should never be attempted until the exciting cause has subsided and then a semi-pressure dressing applied to the eye for several days is usually sufficient.

In 7th nerve paralysis a blepharoplasty may be performed at the outer angle. This shortens the fissure and holds the lower lid in better apposition. If the relaxation is great enough a fascia lata sling may be used.

Cicatricial ectropion occurs more frequently in the lower lid and may develop following burns and traumatism in which there is a loss of tissue with subsequent scar contraction.

The treatment is surgical and consists in the removal of the scar tissue with the freeing of adhesions so the lid may return to its normal position. The lost skin should be replaced with full thickness lid or cephalo auricular grafts. The area that is to receive the graft must be prepared with care and all bleeding points stopped. Two inter-marginal adhesions are then made between the upper and lower lid.

This procedure is not difficult if a sufficient amount of tissue is removed at the lid borders with the denuded areas meeting at opposing points. The raw edges are then approximated by a horizontal mattress suture tied over small pieces of rubber tubing. Failure to produce adhesions is usually the result of removing too little epithelium and underlying tissue. Little difficulty will be encountered if the lid margin is grasped with a muscle advancement forceps and

the tissue removed with a ground down cataract knife.

The size of the skin transplant may be determined by cutting an oiled paper pattern with a dimension slightly larger than the defect. Points on the graft should be avoided and interrupted fine black silk used to suture the skin in place.

When a pedicle graft must be used it should be secured from neighboring parts. There is seldom a need for it in cicatricial ectropion save in the few cases where a good bed cannot be prepared to receive the graft. An example of such a case is a deep wound below the eye with bone injury near the orbital margin and scar tissue that has partially filled in the depression. A flap can be turned down from the temple or forehead and the thickness gauged by the depth of the defect that must be filled.

Entropion or a turning in of the lid is usually associated with trichiasis and may be divided into spastic and cicatricial types. The former is caused by a spasm of the orbicularis muscle and may become chronic when there is a hypertrophy of the orbicularis fibers near the lid margin and aggravated by a relaxation of neighboring tissues as in old age. Ziegler's cautery puncture and taping have been recommended for the intermittent forms, but in the chronic cases, permanent results can be achieved more readily by the excision of a portion of muscle and skin, according to the method of Hotz.[6]

This is done by making an incision through the muscle fibers and skin parrallel with and 3 mm. from the lid border, extending to within 5 mm. of the inner and outer canthus. An elliptical incision is made below it so that an area of skin and orbicularis 3-4 mm. wide may be removed. The secret of the operation is to pick up this tissue and remove all the muscle fibers down to the tarsus and after undermining the skin next to the lash border to remove the hypertrophic muscle fibers up to it. Three sutures are then placed through the skin and tarsus. There is a tendency when first performing the operation to remove too little skin and muscle tissue.

In the cicatricial form of entropion there is usually a distortion and contraction of the tarsal conjunctiva and plate with trichiasis which in severe cases may produce a chronic kerato-conjunctivitis. The treatment is always surgical and directed toward a straightening of the tarsal plate, restoration of the normal position of the cilia and prevention of the recurrence of the condition. In mild cases it is occasionally possible to use a Hotz stitch but when there is much contraction and trichiasis it is far safer to employ a technique which will straighten the tarsus and restore the cilia to the outer edge of the lid. Streetfield, Blaskovic and others have described numerous procedures but none have been found, in my opinion, to excell the operation of Van Millingen as modified by Doctor Harold Gifford.[7]

In this procedure, the lid border is slit along the white line, care being taken not to damage the lash bulbs and to keep them on the skin side of the incision. If there is a marked rolling in and contraction of the tarsus, a narrow wedge-shaped incision may be made through the most curved part and a strip about 1 to 2 mm. in width removed.

This allows the tarsus to relax and lessens the concavity. Sutures are then placed as shown in the slide and the defect filled with a thin mucous membrane graft taken from the inside of the lip.

No attempt need be made to suture the graft in place but care should be exercised in getting good apposition between the tissues and the graft. A small wisp of moist cotton covered with vaseline is placed directly over the graft and the whole eye covered with a semi-pressure dressing.

Colobomas of the lid. — Colobomas of the lid may be divided into congenital and acquired. When the defects are small, most of them can be repaired by the use of the Wheeler[8] halving principle. This consists in closing the skin and underlying tissues in different planes. This adds security to the wound when it is under tension and produces minimal scarring at the sites of the incisions. If we assume that the deformity is in the upper lid, the mass of scar tissue around the laceration of the tarsus must be excised and the tarsal flaps cut straight across to give even apposition.

A slight over-correction of the notch may be achieved by making the tarsal flaps slightly shorter above than below. The skin and underlying orbicularis are then cut to make a sliding flap on one side and a rectangular area of tarsus is exposed on the other side. An external can-

thotomy can be performed on the upper tarsal ligament if the lid is too tight. A triangular piece of skin and under-lying tissue should then be removed to prevent puckering and the tarsus and conjunctiva sutured with three interrupted chromic sutures. If silk is used and tied on the conjunctival side, some difficulty may be encountered when an attempt is made to remove them. A mattress suture is carried through the triangular area of exposed tarsus, out through the flap, and tied over small pieces of sterile rubber tubing. The mattress suture should be removed after three or four days. If additional splinting is necessary, the lid margin may be sutured together or held in place for a longer period of time with inter-marginal adhesions.

When larger defects are encountered, the lost tissue must be replaced by pedicle flaps or combind with a reverse Hughes'. The latter procedure will be discussed later, the results being superior to many methods now in general use.

Taro-Conjunctiva grafts. — Taro-conjunctival sliding grafts for lower lid reconstruction all start by partially or completely separating the upper lid into two layers: a taro-conjunctival and a skin orbicularis layer. This must be followed by the removal of the epithelium from the lid border.

When the conjunctiva of the lower lid is still present, Landolt's[9] method may be used. This consists in suturing the free end of the conjunctiva between the two layers of the split upper lid and joining the skin of the upper lid to the skin of the defect below. This is not good, however, because the splitting of the tissues at a later date moves the lashes of the upper lid to the lower lid.

Dupuy-Dutemps[10], to avoid this, completely separated the upper lid into two layers and sutured the conjunctival edge of the lower stump to the free edge of the upper tarso-conjunctival layer. The skin and muscle layer was then pulled down and sutured to the skin border of the lower defect. Several weeks later the skin was incised just below the ciliary border, returned to its old position and the tarso-conjunctival layer covered with a pedicle flap from the upper lid. Four weeks later the lids were separated by a through and through incision below the ciliary border. This procedure is quite satisfactory but I believe the skin pedicle would take if sutured in place during the first stage of the operation.

Hughes'[11] modified the Dupuy-Dutemps' operation by substituting the skin of the cheek for the pedicle graft from the opposing lid. The various stages are shown in the following slides.

For blepharoplasty of the upper lid, good results may be obtained by using a reverse Hughes'. This is essentially the same as the original Hughes' operation, but the lower lid rather than the upper is split and approximately one-half of the lower tarso-conjuctival layer transplanted to the upper lid. Excellent results may also be achieved by the procedures recently described by McLean[12] and by Sugar[13].

In partial defects of the upper and lower lid where not more than ⅓ of the tarsus is missing, a Kuhnt[14] sliding tarso-conjunctival flap may be used. This flap is prepared by making two vertical incisions through the conjunctiva and tarsus of the opposing lid, the incisions beginning at the margin of the lid and extending at least ½ cm. beyond the tarsus. This tarso-conjunctival pedicle is then shifted to fill the tarsal defect, two inter-marginal adhesions being placed on each side of the sliding graft. The skin defects may be filled by either a vertical or a horizontal sliding flap, the horizontal being preferred as it fulfills the principles of Wheeler's halving operation. Some cosmetic improvement can be secured by the transplantation of lashes, according to Wheeler's method. This should always be done before the final separation of the adherent lids.

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INDICATIONS AND CONTRAINDICATIONS TO GASTROSCOPY

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Since the introduction of gastroscopy as a diagnostic procedure, many controversial problems have arisen. While many of them primarily concerned the gastroscopist, the internist and general practitioner are primarily concerned on which patient this procedure should be used. What are the indications for its use and finally what diagnostic information can be obtained by this method of examination? The medical man also wishes to know whether this approach is superior to roentgenological examination. Finally, is this method safe and do the results warrant the discomfort and dangers which may arise. I will attempt to answer these questions by reporting my experiences in gastroscopy both here and abroad in a large number of patients.

I will attempt to take a midline course between those who are overly enthusiastic and those of us who are trying to be conservative in our clinical evaluation.

The term "gastroscopy" is used to denote a procedure by which a combined light and optic system enclosed in a rigid or semi-flexible tube, is introduced into the stomach by mouth. The optic system having an objective at one end, and an ocular on the other, renders it possible to inspect the living mucosa and to detect surface changes inaccessible to other types of examination.

Gastroscopy is by no means a new method; its history started with Kussmaul in 1886 who, experimenting with a sword swallower, conceived the idea that it must be possible in every human being to straighten the passage from the upper teeth, esophagus and cardia into a direct line and to introduce an instrument into the stomach. Kussmaul lacked the optical means to succeed in the inspection of the interior of the stomach, but about 15 years later the Polish surgeon Mikulicz-Radecki built the first usable instrument and from that time progress was more rapid. New instruments have been devised by Loening and Stieda, by Elsner, and many others, but all these gastroscopes were relatively dangerous instruments, because of their size and rigidity, and many fatal esophageal ruptures were produced. Therefore, gastroscopy remained an experimental method in the hands of a few skilled workers. But these few enthusiasts stuck to their guns and, thanks to the persistence of such men as Elsner, Schindler, Gutzeit, Hohlweg, Korbsch, and Moutier, gastroscopy was developed into a routine method; its mechanics were studied, numerous endoscopic observations were described and compared with clinical symptoms and thus a well founded experimental and clinical material has been accumulated.

In 1932, the flexible Wolf-Schindler instrument was invented and the biggest objection to gastroscopy, the peril of perforation, even in not very skilled hands, has been practically removed. Gastroscopy spread all over the world and became a routine examination in all larger and well equipped hospitals.

But to be sure, the Wolf-Schindler instrument is not yet the ideal solution for the process of a complete inspection of the stomach; there are still defects of mechanical and optical nature in this instrument, which have to be removed before the final perfection will be achieved.

Without going into details of the optical or mechanical problems of gastroscopy, one thing seems to be important enough to be mentioned here, and that is the actual position of the instrument in the body during gastroscopy. The understanding of this problem may help to explain the difficulties of gastroscopic examination which are due to intricacies of the anatomy of the human stomach. Compared with the endoscopy of other organs, gastroscopy and the interpretation of its results is rather complicated.

The route by which the instrument is introduced is the pharynx, the tortuous esophagus, and the sharply bent cardiac entrance. This passage limits naturally the mobility of the gastroscope to up and down movements and to a rotation along the axis of the instrument; lateral excursions are minimal and, because of the narrowness and fixation of the esophagus, dangerous.

The cavity of the stomach being asymmetric, tapering towards the pyloric end, and having a more or less pronounced angulation in the middle of its body, and lying bent over the spinal column, is a further obstacle to a centric placement of the instrument. All these factors force the gas-

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Gastroscopist at Michael Reese Hospital and Mount Sinai Hospital, Chicago, Presented at Stomach Group Seminar of Michael Reese Hospital on January 20, 1944.

troscope into a definite, fixed position at the cardia and close along the left side of the spinal column on the posterior wall of the stomach; when pushed downward, the tip of the gastroscope hits the larger curvature near the beginning of the antrum.

The idea that the flexible scope is able to slide smoothly along the larger curvature into the antrum is a false one. Numerous x-ray examinations have revealed that the flexible end of the scope after having passed the cardia, regains its former straight shape and behaves like a rigid gastroscope.

When the gastroscope is in its position, air must be blown into the stomach in order to detach the mucosa surrounding the objective and so to permit the objective to collect the incoming rays and to pass them along the tube to the ocular.

Knowing these simple facts it is easy to understand why the prepyloric region of the small curvature, the most important territory in gastric pathology, is often hidden behind the angulus and why it is impossible to visualize in any case the upper part of the smaller curvature, small parts of the anterior wall and larger parts of the posterior wall and of the fundus. These parts are either out of the field of vision, or their mucosa cannot be detached sufficiently from the objective in order to be visualized.

For the same reasons biopsies are possible only from limited areas close to the objective, that is from the posterior wall, which may not be representative of pathology in other parts of stomach. Biopsies are not justified under present circumstances, and I do not believe that they will become a routine procedure even with improved instruments. The peculiar anatomy of the stomach will frustrate such attempts.

In order to eliminate the mentioned invisible areas or the so-called blind spots, a new type of a modified rigid gastroscope has been devised by Korbsch several years ago and lately has been copied here. According to my experience and in agreement with a number of well known gastroscopists this instrument, which is provided with an exchangeable prograde, orthograde and retrograde vision, proved to be superior in every respect to the flexible scope. Although not ideal in all details it constitutes a definite progress towards the total inspection of the gastric mucosa and, although rigid, because of its small caliber it is just as safe as the flexible instrument in the hands of a skilled examiner.

What are the indications for gastroscopy?

As a general rule, no patient should be gastroscoped before complete clinical, laboratory and x-ray examinations have been made. Gastroscopy should be a final examination, performed when a careful clinical study has left some doubt regarding the diagnosis or the further therapeutic procedure. Only in such cases is gastroscopic examination justified, and may be of value both to the patient and to the examining physician.

Gastroscopy can and should be performed on patients with positive or with negative findings only when the following indications are present.

1. When there is a long standing history of obscure abdominal complaints with negative physical, laboratory and x-ray studies. Small, shallow gastric lesions, not detected by x-ray, are not infrequently found.

2. Neurotic patients with dyspeptic symptoms, but without positive findings on repeated examinations should be gastroscoped before being sent for psychotherapy. Early carcinoma has been found in some of these so-called neurotic patients.

3. A patient with unexplained loss of weight, loss of appetite, or persisting nausea, may have an early gastric carcinoma not apparent yet on the x-ray film.

4. Patients with unexplained hematemesis or melena when gross hemorrhage has subsided for a safe period of time should be gastrocoped, because small shallow bleeding ulcers, gastric erosions, hemmorhages from gastritis or even a high carcinoma of the corpus have been found not infrequently.

5. Patients with positive x-ray findings or definite gastric pathology, should ge gastroscoped in order to confirm a difficult or a doubtful diagnosis, or to aid in the differential diagnosis between a malignant and a benign ulceration. I do not believe that, except in the pre-pyloric region of the smaller curvature, there is a frequent incidence of benign ulcers of the stomach which become malignant later; I am sure that in cases in which this will occur, gastroscopy cannot be of much help in the early recognition of a malignancy. The gastroscopist finds it equally as

difficult as the pathologist to differentiate the benignancy or malignancy of a given lesion from gross observations in a borderline lesion. Parenthetically it may be stated that pathologists have difficulties at times in arriving at an exact diagnosis from the microscopic examination of the excised tissue.

The primary malignant ulcers which in their early course often simulate the symptomatology of a benign ulcer are sometimes diagnosed as malignant by gastroscopy at a time when the roentgenologist does not suspect anything. There are recent reports that a malignant lesion will heal superficially under ulcer management, but later will break down in spite of this management. It is reasonable to assume that some of these cases would have been picked up by gastroscopy because of the increasing carcinomatous infiltration of the floor of the ulcer, at a time when the niche had disappeared roentgenologically.

6. Patients with complaints after gastric resection or anastomosis are the most gratifying cases for gastroscopic examination. Poor functioning, or ulcerations at the stoma, not visualized by the x-ray, and the most severe and extensive gastritic changes are explanations for the absence of relief by the operation in these patients.

7. If a clinical and x-ray diagnosis of gastric malignancy has been made, gastroscopy may often aid in determining the possibility or the extent of resection. Excessive inflammation of the gastric mucosa surrounding a malignancy may simulate extensive invasion of the gastric wall on the x-ray film, while gastroscopy may help to reveal that the malignancy is more limited and resection is still possible.

8. A healed gastric ulcer in which the niche has disappeared at the final x-ray examination should have a gastroscopic follow-up when the lesion is in an area accessible to visualization. Ulcers believed to be healed by clinical and x-ray evidence may still show activity gastroscopically. These are the cases which later are thought to be the recurrence of an old ulcer or a new malignancy, but which are only a continuation of the primary process. The benefit of an examination is very obvious.

9. If the diagnosis of a duodenal ulcer has been made and if a resection is contemplated, a preliminary gastroscopic examination is, in my opinion imperative. It is believed that the presence of severe gastritis is the cause for poor post-operative results (Gutzeit and Korbsch). I am sure that, in a number of cases, a preoperative gastritis has been present and that adequate medical treatment might have prevented post-operative complications. No surgeon would ordinarily perform an extensive operation in an area of inflammation. Therefore, there should be no justification for operations in the presence of extensive gastrititis when the operating procedure is an elective one.

10. In patients with pyloric obstruction in whom a definite x-ray diagnosis of the underlying pathology is often very difficult, gastroscopy may be of value.

Cases of gastritis are fascinating subjects for gastroscopy from the point of view of research. For all practical purposes, gastroscopy gives very little aid in this disease and has a definite value only in a small number of cases, especially in post-operative ones. Thanks to gastroscopy we know today that gastritis is more often found in the human stomach than was ever believed formerly. But in spite of the piling up literature and of extensive studies, nothing conclusive has been achieved and none of the problems of gastritis have been settled. I do not feel that the classification of different types of gastritis is of clinical or of practical value. Up to date no definite correlation between the gastroscopic, the x-ray and the pathological findings has been established. Severe gastritic changes found by gastroscopy are compatible with complete lack of subjective symptoms and with perfect well being, while on the other hand in some cases with so-called typical gastric symptoms, no pathology whatsoever may be present at a gastroscopic examination.

I have questioned the clinical significance of chronic gastritis from a practical point of view for years. Even the recent and somewhat better founded reports of the alleged relationship between atrophic gastritis, pernicious anemia and gastric cancer are still so vague that I did not change my opinion in this matter.

I believe that superficial and hypertrophic gastritic and peptic ulcer, as described today, are probably different expressions of the same disturbance, which will manifest itself clinically

only when a threshold for the production of pain or discomfort in a given individual has been reached.

What are the contraindications for gastroscopy?

1. Seriously ill, febrile patients should not be gastroscoped.

2. Patients with bronchitis or other pulmonary conditions associated with cough and dyspnea should not be gastroscoped.

3. Patients with aortic aneurysm, with stenosis or obstruction of the esophagus with esophageal carcinoma, with varices or diverticula of the esophagus, or with cardiospasm, should not be gastroscoped.

4. Angina pectoris, severe distortion of the spine and psychosis, are strict contraindications to gastroscopy.

Does gastroscopy compete as a method with x-ray examination?

From my former statements you can already conclude that this is not the case. Basically, the x-ray examination is a more valuable and superior method than gastroscopy in diagnosing major and minor changes of the stomach, in visualizing all parts of the stomach and in information given about the peristalsis and functional capacity of the organ. The smaller and the superficial alterations of the gastric mucosa are better demonstrated with the gastroscope, and for this reason the gastroscopic examination is able to supplement x-ray studies, but never to replace them. Close collaboration between gastroscopists and roentgenologists will lead to a better and more satisfactory diagnosis in doubtful cases.

Can gastroscopy be recommended as a safe method and is the discomfort associated with it worthwhile accepting it?

Gastroscopy with the flexible and even with the rigid instruments of today is a perfectly safe method and many thousands of examinations have been performed without mishap. The few reported accidents were produced by peculiar circumstances which probably could have been avoided. I do not share the opinion of some that a gastroscope must be so safe that it can be put into the hands of any physician who wants to use it Such instruments will never be developed.

The discomfort allegedly associated with a gastroscopic examination is so minimal with a good local anesthesia, that it cannot be an objection in indicated cases.

ORBITAL PROPTOSIS

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Protrusion of the eyeball occurs often enough in ophthalmology, otolaryngology and general medicine to warrant a discussion of the subject.

Most acute inflammations or rapid swellings which may simulate or produce proptosis such as osteomyelitis, orbital abscess from acute sinusitis, cavernous sinus thrombosis and trauma, offer little difficulty in diagnosis, as other manifestations of the disease are present. These will not be included in the discussion.

Exophthalmos may be unilateral, or bilateral. There are a few conditions which produce bilateral involvement of the orbits such as that associated with thyrotoxicosis and other systemic disorders. Unilateral proptosis frequently taxes one's diagnostic acumen to the utmost. The problem of ocular proptosis may be approached best from the standpoint of possible anatomic origin, that is, whether or not it arises from general disease or from a distant part of the body, paranasal sinuses and skull, cranial cavity, or within the orbit itself.

A. Proptosis from systemic causes or growths in distal areas.
   1. Proptosis associated with thyrotoxicosis
   2. Xanthomatosis
   3. Metastatic growths
      (a) Neurogenic — especially from the medulla of the adrenal, and sympathetic ganglia.
      (b) Malignancies — lung, prostate, breast and thyroid
   4. Lymphatic leukemia
   5. Chloroma
   6. Syphilis

Exophthalmos associated with hyperthyroidism usually occurs bilaterally, although it may be unilateral. Formerly, it was the concensus of opinion that toxic goitre was the primary cause. Recent experimental and clinical in-

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vestigation has indicated that the anterior lobe of the pituitary, which secretes the thyrotropic hormone, plays the primary role in producing this condition, with the thyroid of only secondary importance. Smelser,[1] Reese,[2] Thomas & Woods,[3] Jensen,[4] Friedgood,[5] Covitz,[6] Hertz and associates,[7] presented cases where exophthalmos had preceded the tremor, increased B.M.R. and other signs of thyrotoxicosis. Significantly, these investigators have proof that malignant exophthalmos may follow thyroidectomy. The proptosis is the result of edmatous fibrosis, muscle degeneration and cellular infiltration of the ocular muscles which tend to push the globe forward. It is assumed that malignant exophthalmos is due to excessive anterior pituitary action, or at least to an unbalance between the pituitary and thyroid since exophthalmos has been produced in animals by high anterior pituitary dosage and improvement in some malignant proptosis by thyroid extract administration.

The ordinary signs of exophthalmic goitre such as tachycardia, hypertension, heat intolerance, increased B.M.R., Stellwag's and Graefe's signs are not present in malignant exophthalmos. There is a marked lid thickening, chemosis, diplopia, conjunctival symptoms, epiphoria and usually a rapid onset of bulbar protrusion.

Treatment for thyrotoxicosis should receive the attention of the internist or surgeon. Thyroidectomy is not indicated for exophthalmos unless toxicity is present and uncontrollable. Irradiation of the pituitary gland has been beneficial in some cases of malignant exophthalmos; thyroid administration and iodine have aided in reducing the proptosis. In other patients, it has been necessary to perform surgical procedures in order to overcome the extreme exophthalmos. Palliative treatment consists of tarsorrhaphy, canthotomy and relaxing excision of the orbital fat. More radical operative procedures consist of Naffziger's transfrontal type with orbital and optic canal decompression, or Sewall's removal of frontal sinus and ethmoid cells.

Xanthomatosis may produce proptosis if it involves the skull. This disease usually has its insidious onset in childhood. Microscopic study of the granuloma-like mass reveals pale ovoid cells with pyknotic nuclei and lipoid droplets — so called foam cells. Schuller-Christian syndrome is a generalized form of idiopathic xanthomatosis affecting the skin, aponeurosis, visceral organs and bones. It is characterized by defects in bones, diabetes insipidus and proptosis. Irradiation has offered the most therapeutic benefit.

Most of the neurogenic tumors migrating to the orbit arise from the sympathetic nervous system, especially the adrenal and sympathetic ganglia. They finally manifest themselves in the flat bones of the skull, proptosis and ecchymosis of the lids. There is moderate anemia, loss of weight, and intermittent fever. Soft vascular tumors occur about the skull with dilatation of superficial veins of the scalp. Palpable tumors eventually become evident in the kidney and liver regions. The long bones and ribs may become involved. X-rays show a worn eaten appearance. Metastatic malignancies occasionally occur from the prostate, breast, lung and thyroid. These organs should be investigated as a possible source of orbital tumors if no other cause can be found.

According to Reese and Guy,[8] proptosis occurs in about 2% of lymphatic leukemia cases. The commonest ocular manifestations are retinal and conjunctival hemorrhages, puffiness of the eyelids and pale milky appearance of the fundi and blood vessels. A generalized lymphadenopathy is present. There is a very high leukocytosis with the differential count showing a marked lymphocytosis.

A few cases of chloroma have been reported in which bilateral exophthalmos has occurred, Derer and Friedman.[9] The lids become edematous. The fundi show venous stasis; the liver and spleen and lymphatic glands are enlarged. The blood picture is that of myeloid leukemia. Tumor masses showed a greenish color and were diagnosed as chloromyeloma. Gump and associates[10] also reported that gingivitis, diminution in vision and hearing occurred and that the monocytes varied from 20% to 60%.

Most of the reported cases of tertiary syphilitic proptosis have been unilateral. There is pain and impairment of one or more of the motor nerves of the eye. The most common site is the orbital apex or superior wall of the orbit. Ptosis may be present. Other signs of leutic infection will aid in making a diagnosis.

B. Lesions of the Paranasal Sinuses and Skull Invading the Orbit.
   1. Malignancies
      (a) Carcinoma — particularly of the ethmoid and sphenoid
      (b) Lymphosarcoma from epipharynx and lateral pharyngeal wall
   2. Benign growths
      (a) Osseous lesions of nose and sinuses
      (b) Mucocele
      (c) Nasopharyngeal fibroma
      (d) Xanthomatosis and cholesteatoma

Thorough history, physical examination, biopsy, laboratory investigation and x-ray of the sinuses are paramount in determining the cause of orbital proptosis. It is helpful to carefully examine the position and movements of the globe. If the break through into the orbit is from the sphenoid or posterior ethmoids, the proptosis is primarily forward; if from the frontal sinus, the eyeball is depressed and may be proptosed with limitation of upward movement. When the lesion arises from the anterior ethmoids there is a greater lateral deviation with restriction of internal movement of the orbit. Tumor masses from the maxillary sinus will tend to push the eye upward and forward if the break through is rather far back in the orbital floor.

Diagnosis of malignancy of the sinuses is usually quite evident by the time proptosis of the eye has occurred. The characteristics of the hyperplasia of tissue, recurrent bleeding and with rapid regrowth after removal from the sinus is almost diagnostic in itself. However, early microscopic study should always be done so that radical operative procedure and irradiation can be instituted.

Case Report: Male, age 24; in good health except for a left nasal blockage and nasal discharge. Examination revealed cloudiness of the left ethmoids and sphenoids by transillumination and x-ray. There was moderate hyperplastic tissue in the left ethmoid region which bled easily. Biopsy revealed chronic inflammation. Ethmoidectomy and sphenoidectomy was done and all of the tissue sent for laboratory examination. Pathologic report was carcinoma Grade III. Heavy irradiation was done but in spite of this a marked exophthalmos occurred and an invasion of the frontal sinus and brain. Early radical operation was refused by the patient and the patient died three months later with brain metastasis.

The osseous growths are benign, grow slowly, usually cause little or no deformity or discomfort until extremely large. Erosion of the thin bone separating the sinuses and the orbit eventually produces a displacement of the globe and interference of ocular movements. Most orbital osteoma have their origin in the frontal or ethmoid region. Trauma seems to be the commonest etiological factor and usually occurs in youth and early adult life. Smith[11] and others are of the opinion that this tumor is closely allied with both the giant cell tumor and osteitis fibrosa.

Mucoceles of the ethmoids and frontals may produce the same symptomatology as osteomatous growths, but can be differentiated by the marked bone density of osteoma as seen by x-ray. When the mucocele has broken through into the orbit, the fluctuant character of the tumor can be felt. Surgical removal is the treatment of choice for both conditions.

Nasopharyngeal fibroma is a rapidly growing vascular, fibrous tumor originating in the epipharynx from the base of the skull. Most of these tumors occur in the adolescent period and although benign, they may invade the ethmoids and orbit. The tumor is sensitive to irradiation with radium or x-ray. Surgical removal can be done later if necessary.

Xanthomatosis has been discussed under systemic disease and is mentioned here again because the only manifestation of lipoid metabolism disturbance may be a tumor mass in the sinus and orbital region. Knapp[12] discussed orbital xanthomatosis ten years ago.

Cholesteatoma is a rare condition of the sinuses and skull. It produces destruction by pressure and may invade the orbit. There is so little in the literature about this disorder, with the exception of secondary cholesteatoma occurring in chronic suppurative otitis media and mastoiditis, that I am presenting a recent case:—

D.W.: Age 26. The only history that might have any bearing on the development of this condition was a blow over the left eye causing a laceration when he was 5 years of age, which was taken care of by the family physician. While he was still quite young the left eye began to bulge and has become gradually worse. He has not been subject to headaches or dizziness. There are some symptoms of eye strain after prolonged use of his eyes. There has been no complaint of nasal obstruction or discharge. Examination revealed a marked exophthalmos of the left eye with the lids barely covering the globe. There was no

inflammation of the lids or dystrophy of the cornea. Vision in the right eye was 20/20; the left eye fingers at 8 feet. The eye was markedly depressed below the level of the right eye with limitation of vertical movement. A firm tumor mass was palpable above the left eye and a small round mass about 3 cm. above the eyebrow in the temporo-frontal region of the frontal bone. The remainder of the physical examination was normal, including a neurological study. All laboratory investigation was normal. X-ray of the skull and sinuses revealed the roof of the left orbit almost gone with a round bone defect at the upper outer angle. The left frontal sinus and ethmoids showed cloudiness. There was no evidence of endocranial pressure. An external frontoethmoid incision was made in order to obtain a biopsy and exploration. The orbital edge was irregular. A large tumor mass of firm pale cheese-like material was found extending above and behind the globe. The floor and posterior wall of the frontal sinus was completely gone. This mass came out in regular onion layer peelings. The dura was thin but otherwise normal. There was none of the mass in the ethmoids but an ethmoidectomy was done in order to give good drainage. Pathologic report was cholesteatoma. Four months later an external frontal operation was performed with the incision carried up at the outer tip of the eyebrow up in the temporo-frontal region to completely eradicate the cholesteatoma from behind the eye and skull. The orbital contents were deflected down and inward and temporal muscle reflected outward. The remaining mass was removed by spoon and bone biting forceps where erosion had taken place through the lateral orbital wall. A tract led from the orbital ridge up to the round area in the fronto-temporal region which was removed. There was no evidence of chronic osteomyelitis. The entire cavity was thoroughly curetted and irrigated with saline and antiseptic. The cavity was partially filled with iodoform gauze which was brought out through the nose and primary closure of wound was made. Counter pressure was used over the eye as the gauze was removed. Pathological report was cholesteatoma. Vision is now 20/40 and correctible to 20/20. There is no diplopia except on extreme lateral movement of the eyes.

C. Proptosis arising from intracranial lesions excluding subdural hematomas cerebral abscess and cavernous sinus thrombosis, causing unilateral and bilateral exophthalmos from intracranial causes, are usually connected with basal tumors of the anterior and medial cranial fossae. This may be the only symptom for a number of years. In Skydsgaard's[13] series 4% of these patients develop exophthalmos, while Cushing estimates that 8% of all brain tumors produce exophthalmos. Proptosis in meningiomas are most common, especially those involving the pterygoid process, with hypophysial and other intracranial tumors less frequently. Gliomas rarely involve the orbit except those involving the chiasma and optic nerve. Other symptoms which must be looked for are motility disturbances of the 3rd nerve, x-ray changes, variations in visual acuity and fields. Ophthalmoscopic examination may reveal optic atrophy and bilateral stasis.

Patient E.T.: was seen in April 1937, with the chief complaint of feeling that eyes were going to cross for one month and of some blurring of vision. Diplopia occurred on horizontal movement to right. Fundi examination was normal except for moderate arterial hypertensive character of arterioles. In September there was a definite proptosis of the right eye with diplopia. The right fundus showed a two diopter choked disk and several hemorrhages and slight pigmentation of the macula. A paracentral scotoma was present, the peripheral fields normal. Dr. Ernest Sachs using the Naffziger technic, found a meningioma extending back over the cavernous sinus into the middle fossa against the tip of the temporal lobe. The exophthalmos and edema of disk disappeared. After about six months the patient complained of headache and vision loss. About one year following the original operation it was necessary to reoperate on this patient. There had been a regrowth of the meningioma and the greater wing of the sphenoid was removed and all the tumor mass that could be found, but there was a suspicion that the tumor had invaded the cavernous sinus wall. The symptoms disappeared but again returned in six months. Further operation seemed futile. The patient died two years following the time of the first operation. X-rays of the skull revealed destruction of the posterior part of the right orbit involving the optic canal and anterior clinoid process.

Carotid cavernous sinus aneurysm will produce a pulsating exophthalmos. More will be said of these conditions in subsequent paragraphs.

D. Lesions of the orbit and adjacent tissues

1. Vascular lesions
   (a) Hemangioma
   (b) Varicocele
   (c) Arteriovenous aneurysm
2. Pseudotumors
3. Meningioma
4. Neurogenic tumors
   (a) Neurofibroma
   (b) Fibrosarcoma of optic nerve
   (c) Glioma of optic nerve
   (d) Neurolemma
5. Dermoid & epidermoids, orbital cysts
6. Lymphoma, lymphosarcoma
7. Fibroma

8. Mixed tumors of lachrymal gland

The vascular tumors are slow growing and painless. There is usually very little to be felt in the orbit. Varicoceles produe intermittent exophthalmos when orbital venous stasis occurs as with the head lowered, returning to normal after the head is brought into an upright position. There may be a sensation of pressure in the eye, vertigo and vomiting, but little or no pain. Injection of sclerosing agents has been sponsored by Herbert,[14] Reese[15] and Weekers.[16] Ellett[17] thinks this is a dangerous procedure in cavernous hemangioma. Hemangioma has also responded well to irradiation and excision if encapsulated.

Pulsating exophthalmos is produced by aretriovenous aneurysm. It is most frequently found in cavernous sinus type in which there is an abnormal communication between the cavernous sinus and the carotid artery which lies within it. It can occur in vascular tumors of the orbit such as cavernous angioma, malignant hemangioendothelioma, or arteriovenous aneurysm of the ophthalmic vessels within or just outside the orbit. There is usually a bruit present. Ocular muscle weakness associated with exophthalmos due to pressure on the third and sixth nerve occurs in the aneurysm of the cavernous sinus. Diplopia and visual field disturbances may be present. The pupil may be dilated and the optic disk hyperemic. Optic atrophy has been noted where the pressure has been prolonged. Birge[18] states that oxygen studies from the internal jugular vein shows an abnormally high oxygen saturation in arteriovenous aneurysm. Compression of the carotid will reduce the pulsation, bruit and proptosis. The treatment is excision of the aneurysm or ligation of the internal or common carotid.

Those cases of proptosis due to chronic inflammatory reactions in the extra-ocular muscles and the periorbital tissues have been classified under the heading of pseudotumors, Reece,[15] Dunnington.[19] The etiology has been attributed to foci of infection by continuity or metastasis, tuberculosis, syphilis, trauma and unknown origin. In contrast to primary tumors, the pseudotumors occur much later in life, the exophthalmos develops much faster and there are no abnormal x-ray findings. Edema of the conjunctiva and lids is a frequent finding and may progress to a malignant exophthalmos previously discussed. There is a tendency for the proptosis to regress spontaneously, although some may remain permanently. Absolute diagnosis cannot be made without an exploratory operation and biopsy.

Meningiomas may occur around the optic nerve within the orbit itself. Primary tumors of the optic nerve include neurofibroma, neurolemma, fibrosarcoma and glioma. Neurofibroma occurs most frequently. There is a gradual unilateral loss of vision followed by proptosis and increase in the size of the optic foramen with visual field disturbance. The tumor may involve only the intra-orbital or intracranial portion of the nerve. There may be defects in adjacent bone and evidence of tumors elsewhere in von Recklinghausen's disease. If the tumor is localized within the orbit, surgical removal gives a good prognosis and local recurrences are rare. Final diagnosis rests with the microscopic study.

Gliomas are rare in comparison to other optic tumors and usually develop in the cranial cavity first and early in life.

Dermoids, epidermoids and orbital cysts usually do not produce exophthalmos unless they invade deep and posterior to the globe. They are slow growing and can produce destruction of bone and fat by pressure necrosis. These well encapsulated growths respond well to surgical removal.

Mixed tumors of the lachrymal gland, though benign, must be considered malignant because they tend to invade adjacent structures and are apt to recur after excision.

Sarcoma of the orbit occurs in young persons and is highly malignant and rapid growing. The prognosis is poor in spite of irradiation and radical surgical intervention.

Lymphosarcoma usually produces a bilateral exophthalmos. It responds well to x-ray therapy. According to most authorities this is only one manifestation of a fatal systemic disease and therefore has a poor prognosis. The one case I have had which showed no other evidence of lymphsarcoma except bilateral proptosis, responded beautifully to x-ray therapy. Two years have elapsed and to date there has been no recurrence.

The diagnosis of the causative factors for

exophthalmos frequently requires a painstaking investigation, requiring the cooperation of the other specialties. The importance of x-rays, particularly of the optic foramen, skull and sinuses, blood studies, general physical examinations, ocular muscle examination and fundi studies, cannot be over-emphasized. Above all, exploratory operative procedure for biopsy study should be made before radical surgery of the orbit is considered. This is especially true since pseudotumors and malignancies in many cases must rest upon tissue examination.

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DISCUSSION

Dr. Hallard Beard, Chicago: The exophthalmos which develops in association with toxic disease of the thyroid is one of its most distressing and baffling complications. Most of us have had the experience of promising a patient so afflicted an amelioration, or at least an arrest in the progress of an exophthalmos, if he would have a surgical operation on the thyroid gland, only to see it grow worse after the thyroidectomy. If such cases be due to a disordered secretion of the anterior pituitary, rather than of the thyroid, one might expect more satisfactory results from irradiation of the hypophysis than have been forthcoming.

The evolution of our theories as to precisely the causative mechanism in this type of exophthalmos is interesting and is probably still far from complete. After we had been obliged to discard the notion that contraction of such puny muscles as the orbitalis, or Landstroem's muscle could be responsible, came the conviction that proptosis resulted solely from an actual increase in volume of orbital contents. New tissue was thought to be deposited, notably fat, and vascular channels increased in number and capacity. Latterly, the increase in volume of orbital structures has been attributed more to a gradual influx of fluid — a simple and persistent edema — and, in part at least, to a very considerable thickening of the external ocular muscles. This latter change appears to be in the nature of a fibrous hypertrophy or pseudo-hypertrophy. Cases have been cited in which, upon autopsy, the area of cross section of the ocular was found to be increased as much as eight times the normal.

The great discomfort of the patient, and the apparent imminence of destructive effects on the corneae have often induced the physician to be rather precipitate in adopting drastic measures of treatment. It must be borne in mind that retrogression eventually takes place in not a few cases of even severe thyrotoxic exophthalmos, and that if one can, by patient and painstaking care, avoid ulceration of the cornea until regression occurs, he may yet save the eyesight without resort to such radical procedures as, say, the Naffziger operation. I refer to devices designed to conserve the moisture, or prevent drying of the cornea by day and by night. Spectacles or goggles, with airtight protective shields built up about them of some of the newer plastics, can be worn during waking hours with much benefit, and effective measures have been devised to prevent exsiccation during sleep.

I am much impressed by Dr. Thacker's comprehensive presentation of this whole subject, and by his frankness in describing the typically illustrative cases. It would be well for us to digest thoroughly his remarks on the localization of orbital tumors, judging from the character of the displacement of the eye itself.

I should like to ask Dr. Thacker if he has not found unilateral proptosis due to ethmoiditis a condition rather frequently encountered among young children; and if it does not show a tendency to spontaneous regression if left undisturbed.

Dr. Edgar A. Thacker, Urbana, (closing): In answer to Dr. Beard's question, my procedure, when the ethmoid has broken through into the orbit, is to wait until localization has occurred, if there is any, and then make a simple incision and drainage. I did not mention the acute conditions, since I left that out because we are taking up conditions harder to diagnose. Ethmoiditis is a common condition; breaking

through the orbit is common in children as compared to adults, because that plate is thin in children and in these conditions the other sinuses are not developed much. So simple drainage is the best procedure, with infraction of the middle turbinate and stimulation of drainage intranasally. I recently did simple drainage in a child five years old, who also had an antrum infection. He came down with osteomyelitis a few weeks later, was operated on, and fully recovered.

I wish to thank Dr. Beard for his discussion of this paper.

EMOTIONAL CONTROL A FACTOR IN PRESERVING THE INTEGRITY OF THE HEART

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In addition to marvelous and life-saving drugs, proper diet and surgical treatment of heart disease, or more properly cardiovascular disease, there are three other therapeutic measures of vast importance. They are not new. Their value has long been known to the medical profession. The technique of the administration of these remedies is difficult to master and the resistance of patients to taking them is often almost impossible to overcome. If these remedies could be dispensed from a bottle in teaspoonful doses, according to the doctor's directions and the patient's needs, people suffering from cardiovascular disease would lead longer, more comfortable and more useful lives.

These three therapeutic measures have the protective value of vaccines and the curative qualities of serums. As a preventive of cardiovascular disease and as a remedy when damage has occurred, there are no drugs to take their place. Omitted, there is no drug that will give more than temporary relief. These three well known remedies are emotional control, rest and exercise. Unless the patient afflicted with heart disease can be taught to acquire emotional control, the other two measures will be largely inoperative. Physicians will learn that study of the life of man and consideration of the bombardments his nervous system endured and continues to endure, both genetically and individually, will add greatly to their ability to administer the psychological teachings needed by patients who are victims of heart disease.

Emotional Control. — The sources from which a knowledge of emotional control can be obtained are parental teaching; observation of humans and animals who are instinctively calm; study of the history of the races; study of the religions of the world; fiction and philosophical writings.

Relatively few people are, or will be interested in embarking on so formidable a course of study. Relatively few people have the education necessary to understand the meaning of what is presented in this extensive course. Equipped with a knowledge based on scientific methods of inquiry, physicians are the logical dispensers of this knowledge to their patients. Diagnostic knowledge makes it possible for physicians to distinguish between the effects of emotional stress and tissue injury. The course is open to all physicians and can be studied in their leisure moments. Some day the premedical course will include a synopsis of the subject of emotional control, sufficient to enable the graduate in medicine to prosecute further research under his own power. Since the dawn of medicine, physicians have known of the damage done to the physical welfare of the patient by the ravages of emotional instability, but it is not so long ago that this knowledge was established on a scientific foundation. Knowledge gained from study of the sources of emotional control will acquaint the physician with the administration of an important remedy for cardiovascular damage, and that other emotional disease, duodenal and gastric ulcer, which curtails the activities and shortens the lives of so many people, including physicians.

The background for teaching emotional control is a general knowledge of the history of man and a special knowledge of man's history as it relates to trauma to the nervous system and to the endocrine organs. A medical school education is not sufficient to furnish this background. These incidents of trauma, both physical and mental, beginning early in man's appearance on earth and exercising from that time an influence on the body cells, have been and continue to be kept active by teachings and beliefs, the truth of which the majority of people in succeeding generations have been and are loathe to question. Because of this tendency to cling to old concepts, progress in the development of scientific inquiries in all branches of learning was, for many centuries, sternly suppressed. The undaunted few, the world's first scientists, who persisted in their researches were

persecuted, tortured and sometimes put to death. Those persecutions contributed an hereditary influence of far-reaching proportions.

In considering the subject of emotional control, we are at once reminded of two primitive and protective instincts, the possession of which are necessary to the protection of the life of the animal in the wild state. These primitive and protective instincts were of equal importance in protecting the life of aboriginal man; but they also exercise a devastating influence on the character of the metabolic processes and the stability of the emotions. These two primitive and protective instincts are fear and anger.

Fear may be an incentive either to alertness or enfeeblement; anger prepares the animal either for flight or combat. Exercise of these emotions protects the animal from dangers from without, but at the same time summons detrimental forces from within that eventually may cause death. Physiologists have submitted indisputable evidence of the toxic effect produced by fear and anger upon the cardiovascular and other systems of the body, especially the gastrointestinal.

When man learned to protect himself from physical attacks by lower animals and his predatory fellowmen, he proceeded to invent hobgoblins that could be used to frighten and control other men. Man shares with the lower animals the desire to inspire fear and anger in the minds of his fellows. As evidence of this desire, the human race revels in the contemplation of opposites. This predilection provides the stage for a constant play on the emotions. A few of the opposites that challenge universal interest are —

God and the Devil
Heaven and Hell
Good and Evil
Conservative and Radical
Beauty and Ugliness

Man more or less eagerly seeks to attain the positives in this category and with less zeal attempts to abhor and evade the negatives. In neither effort is he very successful. In his struggle to uphold virtue and right he is hampered by two obstacles, the pull to the left and the law of mutation.

From time immemorial two conflicting philosophies have struggled for supremacy in the guidance of human emotions. The objective of one of these philosophies is to perpetuate the instincts of fear and anger. Its chief ally is ignorance. The other philosophy diligently, but not with the same emotional enthusiasm, endeavors to allay those instincts. Its chief ally is enlightenment. These two philosophies were recognized early in man's existence. The pagan world believed the warring gods of the heavens vented the wrath of their frustrations on puny and defenseless earth dwellers. The pagans worshipped and feared the warring and cruel gods. They also worshipped and loved the gods and goddesses whom they believed interceded and protected them from the wrath of the cruel gods. To honor the virgin goddess Athena, the Greeks built on the Acropolis the beautiful Parthenon. They were striving for the establishment of the brotherhood of man. In our struggle for improved and better ethical standards and the goal of the brotherhood of man, we are doing much the same thing. We build tombs for unknown soldiers. We erect modest churches and ornate cathedrals where we go to listen to ancient truths retold and to restore our souls. Our most faithful patients, without deserting us, turn to the Psalms and the Sermon on the Mount for consolation and hope. The sweet singer of the Old Testament and the philosopher from Nazareth continue as the outstanding psychologists whom scientific progress has not desired nor tried to supplant.

With the passing of centuries, old threats, old superstitions, and old tyrannies slowly lose ground. Understanding supplants groping and ability to reason correctly replaces vain conjecture. Experience and breadth of knowledge show the futility of indulging the instincts of fear and anger and the superior value of exercising calm judgment. Progress in the extent of individual thinking, makes easier the task of the physician to teach his patients emotional control.

In the domesticated animal, the instincts of fear and anger are greatly modified but never abolished. Neither has man been able to free his mind from the ravages of these two destructive forces. Fear is one of the most deeply rooted instincts possessed by the animal population, man included. It is not likely that man will ever free himself from its influence. Free-

dom from all variety of fears would very likely lead to man's undoing, and the end of the human race. Education and progress, bringing increased knowledge and understanding of things that were profound mysteries to men and women of only a few centuries ago, have released the human race from the bondage of many disturbing inhibitions but have not banished the instincts of fear and anger. There are two general types of fear, one that may very properly be termed legitimate, the other, deplorable. Of especial value to the existence, happiness and prosperity of the human race are those fears that fall within the category of caution. A few examples and their remedies are —

Epidemics — Public Health Measures

Wars — Fair Dealing

Quarrels — Closed Mouths

A few deplorable fears and their remedies —

Fear of the unknown — Investigation

Fear of individuals — Normal amount of egotism

Fear of thunder and lightning — Common sense

Fear of chronic fatal diseases — Education and assurance, based on careful examination, by physicians.

Those unfortunate individuals who begin their business or professional careers believing life's journey should be travelled in high gear, up hill, down hill, and on the level stretches, discover when they reach the fourth decade, "Much haste, less speed." To their great surprise, old age has overtaken them and the fifth decade all too often sees their liquidation. John Hunter, the famous English surgeon, was an illustrious example of this type of individual. At forty-five, Hunter had a coronary occlusion, with symptoms predominantly abdominal. A detailed description of the attack was published by Everard Home, his brother-in-law and surgical assistant. Following recovery from the attack, Hunter continued his work in a somewhat lessened tempo for twenty years. After a stormy session with the Board of Directors of St. George's Hospital, Doctor Hunter dropped dead of a coronary occlusion. For some time prior to his death, he had told his associates of the effect on his heart of emotional stress and expressed the opinion that a major emotional episode would prove fatal. Doctor Hunter died in 1795. The following year Doctor Home published two small volumes containing the medical and surgical contributions of Doctor Hunter. Included, was the description of the attack of coronary occlusion he suffered at forty-five and the autopsy report of the repetition at the time of his death at sixty-five. These ante- and post-mortem reports were ignored by the medical profession and it remained for Doctor Herrick, one hundred and thirty-seven years later, to reestablish the clinical diagnosis of coronary occlusion as the cause of the sudden death of apparently healthy men and women.

The common laborer is probably the least frequent victim of coronary disease. Daily muscular activity helps keep the blood and lymph streams free from stagnation. Detachment from anxiety that goes with physical exertion leads to active digestive processes and freedom from worry. Fatigue at the end of his working day is one of the best sedatives to insure eight hours of restful sleep. The laborer's wants are few, his amusements simple, and his anxieties largely non-existent. Heavy responsibilities are beyond his mental acumen and of all people he is most content to proceed "Along the even tenor of his way." Study of the health history of the laborer, man or woman, will prove one of the best text books on the therapy of the heart in health and in disease.

One of the obstacles encountered by the physician in his attempt to teach emotional control is the ancient and persistent companion of man, known as worry. The physician should acquaint his patients with the fact that worry is a condiment to be taken in small amounts like red pepper and garlic. A little worry, like a little leaven, acts as a stimulant, helping human beings to be independent and self-sustaining. If this is understood, worry will cease to be a burden by day and a disturber of sleep at night. Instead, it will become a harbinger of prosperity and happiness rather than a destroyer of composure.

When the average successful business or professional man acquires a certain financial competence, his program of living changes. He is not burdened with details that formerly kept him busy. He has more money. Time hangs heavily on his hands and he turns to golf or social activities, either of which may be too strenuous

for his age and established habits of life. Happy is the man who chooses a hobby early in life and rides it with enthusiasm tempered by logical restraint. Helpless is the man who reaches the age when the strenuous activities of business or profession are too much of a strain and he finds himself with nothing to do but eat and sleep. It is not easy at that time of life to acquire and learn to follow a useful hobby. When old men without a hobby retire, their life expectancy is about two years. Their lives lack the incentives necessary to the proper functioning of metabolic processes. Old women live longer. All women have hobbies, either manual or intellectual, acquired in childhood.

If we consider the lives of those men and women who attain great age without cardiovascular accidents, we will find that for the most part they practice a high degree of emotional control. They do not permit themselves to be stampeded by people or circumstances. Usually, they are early risers. Early rising has several advantages, among which are time for a morning bath and shower, time to eat a leisurely breakfast, no hurrying for the morning train and the contented feeling of being on time. The day's meals are better spaced and a more orderly business program is easier to follow. Patients who can be induced to follow this routine will discover they are enjoying greater peace of mind, are worrying less, are not so easily upset and will derive much satisfaction from the emotional control they develop. They will learn that rushing through life may bring certain rewards of questionable value at the sacrifice of health and happiness that may encourage an early exitus.

Rest. — Rest is a therapeutic agent which those patients who, for twenty years or more, have been driving full speed ahead, will usually refuse to take. If they grudgingly agree to observe some of the rules prescribed by the physician, they do it with so much resentment and lack of belief in its necessity, that little or no benefit accrues to their nervous systems. Rest, to be beneficial, must be enjoyed. These patients find it most difficult to understand how rest could or should be enjoyed by any ambitious person. They do not appreciate the early warnings given by their failing hearts and regard the symptoms as temporary feelings of discomfort to be dispelled by increased efforts. Their physicians, harassed by their obstinacy, are inclined to cease trying to teach them.

In the early stages of decompensation, rest may be all that is required to restore the overdriven heart, but education of the patient by the physician, which means psychogenic therapy, and the employment of appropriate drugs, are usually necessary. Regardless of the degree of intelligence possessed by the patient, he is hopelessly ignorant of the things to be done to restore and preserve the integrity of the failing heart. Passive congestion of the lungs is one of the first signs of trouble. This is followed by engorgement of the abdominal viscera and other tissues. The temptation to employ digitalis to relieve the edema and increase the force of the heart beat is strong, but that is not the best way. Rest and depletion of the engorged organs will avoid the necessity of increasing the force of the heart beat by the use of digitalis. Coramine, which is a vasodilator and a respiratory stimulant, is the more logical drug. The traditional belief held by patients that vigorous catharsis is dangerous to their welfare is difficult to combat. Depending upon the degree of decompensation, the rest period may have to be continued for three or four months, or longer.

Rest as part of the treatment of children who are victims of cardiovascular disease, is a simpler problem. Like the lower animals, the child when put to bed and provided with toys and books, if let alone, follows his instincts and will not exercise beyond the threshold of his endurance. If treated at home, the family should be warned against trying to entertain him. He may rebel the first few days at the curtailment of his activities, but will reconcile himself and be content to remain in bed for weeks. As recovery progresses, the child will become more active. Neither encourage nor restrain him. In the course of his convalesence he may wear out the spring and mattress.

Exercise. — Exercise is a subject of absorbing interest to all children and to a lesser extent to all adults. Exercise has a physiological and psychological value to the participant, the community and the nation. Julius Caesar noted the moral and physical degeneration of his armies after a winter of idleness in Rome.

For the healthy adult there is no exercise that equals the exercise of making a living. People who follow a sedentary occupation should walk a minimum of three miles a day. One-third of the distance in the morning, one-third at noon and one-third in the evening.

The amount of exercise for the cardiac patient is to be determined by his physician. The supervision should continue from the period of his convalesence to the time when, without being reminded, the patient shall have learned to live within the threshold of his endurance.

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THE RORSCHACH TEST IN POST-ENCEPHALITIS

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A recognition and application of the psychological factor in somatic disease has long been used by the general practitioner in what he calls his "bedside manner". A more thorough and systematic application of this principle has been left to the psychiatrist. He has come to use it as part of his treatment of the patient in terms of the total pattern of the physiological, psychological, and social factors involved. In the treatment of such disorders as paresis and chronic alcoholism, there is a strong somatic component, but the psychological factors must also be considered in the total treatment of the disorder.

Evidence is accumulating that suggests that a total treatment of post-encephalitic conditions must include a consideration of psychological factors. This is in no sense meant to imply that the disorder is not primarily somatogenic in nature. Most of this work has been developed by Dr. Smith Ely Jelliffe in a series of papers[3], [4], [5], [6].

His thesis, as developed in one of his most recent papers[6], can be somewhat paraphrased as follows: The importance of all the physiological factors is not denied but if one is to understand the motor picture, he must understand the unconcious factors which influence the motor system. The post-encephalitic patient has two threats — a real one caused by the disease and a neurotic one caused by a reactivation of old impulses and conflicts which break out of repression because of damage to the nervous system. This results in a "condition of tension" or a "tone of the motor system" which is a complex of affective attitudes. Schaltenbrand[11] was of the opinion that the tremor which results is the same as that which we observe in anxiety and rage. It is the unconscious factors which bring about the ambivalent postures of recoil and challenge, of attack and retreat. The tremor then, is a reflection of the "condition of tension", "inner posture" or "tone of the motor system" as dominated by reactions to the unconcious hostile impulses in a dammed-back condition. More characteristic though is the bent posture of "defense", which is comparable to the attitudes of defense of antique and modern statues. The tremor, then, represents anxiety and hostility while the bent posture reflects an opposite, ambivalent attitude of defense.

The purpose of this paper is two-fold. First of all, to compare the findings of this study with those of other studies so as to more clearly determine the characteristic Rorschach pattern for post-encephalitic conditions. The second aim is, through the medium of the Rorschach test, to study the several personality factors as developed by Dr. Jelliffe.

Rorschach[10] reports a study of one case of Encephalitis Lethargica which was made during the acute period of the infection. Subsequent studies by others[1], [2], [14] made in 1927, 1938 and 1939, but not available to the author, were made sometime after the acute period of infection.

According to Klopfer and Kelly[7] , Rorschach studies on post-encephalitic conditions reveal poor form — usually between fifty and seventy percent, perseveration, confabulation, predominance of color responses, oligophrenic detail responses, disturbed succession, variation between tests, and the possibility of a large number of human movement responses. In addition to this, psychoneurotic manifestations are often present, particularly the phenomena called color or neurotic shock. This suggests the presence of a strong anxiety process as an integral part of the total personality make-up.

A study made by Karen Alper[12], [13] in 1942 on nine post-encephalitic cases showed, first of all, little drive although the number of responses is not constricted. This is reflected by many over-simplified and undifferentiated whole re-

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sponses. This is a sign of the lack of capacity for discrimination and analysis: it represents a dependent adjustment to an easy, facile environment. This same trend was also reflected in the narrow range of interests and content of the responses. Psychoneurotic reactions were manifested by neurotic shock, considerable anxiety, depressive feelings and sexual shock. They differ from psychoneurotics in that there is no compensation reaction such as a retreat to unusual details or white space responses. On the other hand, none of the impotence, delayed reaction time, or sense of frustration of the so-called "organic" patient was present. There was no struggle with impulses, indicating hostility toward people.

The present experimental group is composed of eight men and six women — fourteen cases in all. Five of the patients were typical cases of post-encephalitic parkinsonism; the other nine showed a few of the symptoms usually associated with the syndrome. Five of the cases showed no tremor at all; four had oculargyric crises; and one was a post-encephalitic behavior problem. One of the big drawbacks of a study of this type is the small number of cases usually available. Several cases had to be eliminated because of deterioration or inability to cooperate.

The pattern of responses of this group of post-encephalitis cases on the Rorschach test is distinguished primarily by poor interpretation of form — usually the form percentage is lower than seventy to seventy-five per cent, a predominence of color responses over movement responses, the color responses are of the bright color variety, neurotic shock is very frequently present, the succession of responses is disturbed, the mode of apperception is disturbed to the extent that there is a predominence of either whole or small detail responses, the organization score is low.

Secondary factors which are sometimes present include perseveration, confabulation, more than twenty responses, narrow content and feelings of depression. These findings agree substantially with the previous studies mentioned; there are some exceptions.

The most outstanding findings were the presence of neurotic shock* and the quality and quantity of color responses. Neurotic shock is a phenomena by which the perception of the colored blots produces a state of anxiety in the patient that is evidenced by such reactions as a delay in reaction time, remarks and exclamations indicating tension and anxiety, a decline in the quality of form perception, etc. The number of movement and color responses tends to be restricted but the number of color responses is in nearly all cases greater. In addition, these were mostly of the bright color (C and CF) variety; thus, on one hand we have a well-defined anxiety process present, coupled with an affectivity that is impulsive, labile, and aggressive in nature. Hostility and aggression, in addition, were reflected in such responses as: "two boys with their heads cut off", "a woman — she lost her head", "two bodies stuck together". One male patient referred to the penis as "a man's irritation".

These findings corroberate Jelliffe's statement concerning the presence of hostility and a "state of tension". Often, when responding to the blots, and especially on the color blots, the tension and tremor would become so severe that it was very difficult to make responses. For one patient, the tension, emotional excitement, anxiety and severity of the tremor, on the colored cards especially, became so great that the test had to be discontinued. Along with this picture resembling a psychoneurosis, there are often responses indicating the presence of unrestrained impulses coupled with feelings of depression and guilt.

The low form percentage and disturbed succession of the responses coupled with the frequent presence of perseveration and confabulation show a severe disturbance to the thought processes and contact with reality which is probably brought about by the neurological damage, the anxiety process, or both. The poor mode of apperception with a large number of poorly structured wholes or a pre-occupation with small details is further evidence of this intellectual disturbance. This shows a poor capacity for discrimination, analysis, and creative thinking. This intellectual poverty is also shown by the narrow content in a total number of responses that is not too constricted. Only three of the patients showed a sufficient number of Piotrowski's[9] ten signs for so called "organic" patients.

Summarizing: These findings are in fairly

*For a more adequate discussion of neurotic shock than can be given here, see Miale and Harrower-Erickson.[8]

good agreement with previous studies. The anxiety or "condition or tension" and the aggresion and hostility, as mentioned by Jelliffe, are present. There is also present poor intellectual control which indicates poor contact with reality or a deterioration process. This may result from the neurological damage, the anxiety and tension present, or both.

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GUILTY

The prisoner was on trial for stealing ducks. His counsel addressed the jury at length, pointing out that it had not been proved conclusively that the prosecutor had lost any ducks; that the ducks found in the prisoner's cottage were not those of the prosecutor; that the prisoner had established an absolute alibi.

Just as the judge began to sum-up, the prisoner interposed and asked if he might say something. As an indulgence, this was permitted.

"All I want to say, gentlemen," he remarked, "is that I wish I'd never seen those birds."

HEMORRHAGIC ENCEPHALOPATHY FOLLOWING FIVE DAY TREATMENT OF EARLY SYPHILIS WITH MASSIVE DOSES OF MAPHARSEN: (REPORT OF A CASE WITH RECOVERY).

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With the introduction of the massive dose treatment for early syphilis, Ehrlich's concept of a "sterilisatio magna" appeared to be on the threshold of approximate realization. Serious complications and fatalities occuring in consequence of the treatment proved, however, disconcertingly high. Thus, the incidence of cerebral involvement, which constituted almost one-half of the various death causes[1,2], was 1.8%[3] in contrast to 0.015% in cases routinely treated[2]. The mortality rate under routine therapy was less than one-seventh that of massive dose therapy[4] and only one-fourth of the patients who developed hemorrhagic encephalopathy escaped death[2].

The introduction of mapharsen both for routine and five-day treatment brought a very definite amelioration of the problem. Elliott and co-workers[4] reported only 0.25% fatalities in 2,000 cases, and Leifer and associates[5] saw the occurrence of hemorrhagic encephalopathy drop to 1.1%.

A further source of encouragement lay in the fact that the mortality rate among cases with hemorrhagic encephalopathy had also appreciably receded. From a total of twenty-four cases compiled from the literature, six, or 25% were fatal, whereas seventeen, or 75% recovered, (Table 1), a percentage in almost precise opposition to the mortality rate of 76% obtained from a survey of hemorrhagic encephalopathy following the administration of other arsenicals embracing a twenty-eight year period[2].

The following case report of a fifteen year old girl who recovered from a typical hemorrhagic encephalopathy after a course of five-day treatment with mapharsen confirms the relative benignance of that complication following the in-

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TABLE 1

Author		Number of Hemorrhagic Encephalopathies	Number of Fatalities	Number of Recoveries
Bowman	(23)	2	0	2
Boyd	(13)	2	0	2
Elliott	(4)	2	2	0
Hahn	(5)	2	1	1
Leifer	(3)	1	0	1
Levin	(24)	1	0	1
Rattner	(25)	2	0	2
Schock and Alexander	(26)	3	1	2
Thomas	(13)	8	2	6
Usher	(27)	1	0	1
Total		24	6	18

travenous use of mapharsen. The case may, moreover, prove interesting from a therapeutic standpoint and serve as a contribution to the etiologic problem of the development of cerebral complications in a given individual.

E. R., an adolescent white female, fifteen years of age, was admitted to the Chicago State Hospital, May 4, 1943, as a special guest for five days intensive arsenical therapy on the recommendation of the Department of Public Health. The patient gave a history of a skin rash and sore throat in early April of that year. A blood test taken on April 23d had revealed four plus blood serology. The occurrence of the primary syphilitic infection could not be accurately elicited but had probably taken place within six months prior to admission.

Physical examination on admission disclosed a generalized papulomacular skin rash distributed over face, trunk and extremities. The mucous membranes of the oral cavity showed whitish mucous patches with predilection for the peritonsillar areas. Condylomata lata were observed on the major and minor labia; a profuse sero-sanguineous discharge flowed from the vaginal canal. There was no gonorrheic infection. The lymph glands of the inguinal region were moderately enlarged and tender. Heart and lungs were found essentially negative. Blood pressure was 120/70 mm. mercury; pulse 80/sec. The abdomen was soft and there were no pathologic masses palpable. Neurologic examination revealed no pathologic findings. Although the patient, as stated, had been received as a guest expressly for the treatment of the venereal condition, a brief mental examination was performed. Besides a history of detention for petty delinquencies, wayward sexual trends were disclosed. No psychotic manifestations were apparent.

The urine analysis showed specific gravity of 1.002, acid reaction, negative sugar tests, trace of albumen and 3-5 leucocytes per high power field. The blood picture disclosed 4,840,000 erythrocytes and 12,200 white cells. The hemoglobin was 14.5 gm. The differential blood count showed a shift to the left, but no pathologic cells.

Based upon a diagnosis of early secondary syphilis, the five day intensive antiluetic therapy with mapharsen was instituted May 12, 1943.

A total of 1.2 gm. of mapharsen was given by continuous drip method over a five day period. The patient tolerated the treatment very well with the exception of the usual mild complications arising from occasional headaches and emesis. The body temperature during treatment fluctuated between 98.6° and 99.6° F. Daily urine analysis had shown no essential changes. The white count had receded from the original 12,200 to a low mark of 6,000 on the third day, rising again to 8,300 on the fifth day.

On the first day following termination of treatment, May 17, 1943, patient complained of weakness in her lower extremities. On the 18th of May, she developed numerous urticariform skin lesions on trunk and extremities varying from one-half inch to four inches in diameter. Calcium gluconate, 20 grs., t.i.d., daily by mouth given for three consecutive days failed to alleviate the skin condition. The patches increased in size, spreading to the face on the following day. On that day, May 19, 1943, that is, the third day following the completion of therapy, patient commenced to complain of back pains, in addition to the aforementioned weakness of her lower extremities, and showed urinary incontinence. Temperature had risen to 101°; pulse was 120/sec. No focal signs accountable for the elevated temperature were found.

On the evening of May 20th, the rash was fading but ankles and feet appeared moderately edematous. Patient was extremely nervous and required 3 grs. of sodium amytal to find sleep. On the morning of the 21st, patient refused breakfast, appeared extremely restless, and talked incoherently. At noon patient complained of severe pain in the right side of her neck. Restlessness increased nothwithstanding sedation and in the evening patient failed to respond to questioning. She continued, brokenly, to be noisy and restless. The temperature had risen to 104.4 rectally and the pulse rate was 120. The respiration was 18. Hypodermoclysis with 5% glucose in saline was then undertaken. The patient became increasingly stuporous, being almost comatose by 2:00 A.M. of the 22nd. Her pupils were markedly dilated, the eyeballs presenting a fixed stare.

On the morning of the 22nd, at 8:00 A.M., patient presented the following picture: She was in an unconscious state, tossing in bed, moaning constantly. She did not respond to external stimuli. The pupils were 5 mm. in diameter and did not react to light. Fundi and discs were negative. Corneal reflexes were present. The neck was extremely rigid. The Brudzinski sign was markedly positive. The big toe of both feet dorsiflexed when the extended leg was flexed at the hip joint, (Edelmann's great toe phenomenon).

The deep tendon reflexes were absent with the exception of the right biceps. Urinary and rectal incontinence were manifested. Temperature was 101.8°; pulse rate, 120; respiration, twenty-eight per minute. The spinal fluid findings were as follows: Normal pressure; 28 lymphocytes; 4 neutrophiles; negative Ross Jones, trace of Pandy; negative benzedine test. 77.5 mg% sugar. Negative Kahn; Lange curve: 1111100000.

Intravenous infusion of 400 cc of 25% sucrose, followed by 1000 cc of 10% glucose in saline was given. Later that day, 2,000 cc of 5% glucose were given by hypodermoclysis. In the afternoon, the temperature rose to 104.6°, with the patient appearing to be in a terminal condition.

In the late evening, 500 mg. sodium thiosulfate and 1,000 mg. of ascorbic acid were injected. At 5:00 A.M. on the 23d of May, the patient had myoclonic movements of her upper extremities. The temperature at 6:00 A.M. read 102° in recto. At 8:00 A.M. her left big toe was in constant dorsiflexion. There was a slight drooping of the left corner of the mouth. Aimless movements of the right arm were present. Otherwise, the status had remained unchanged.

She again received 500 mg. of sodium thiosulfate and 500 mg. of ascorbic acid intravenously and 2,000 cc of 5% glucose in saline subcutaneously. In addition, 10 mg. of thiamine chloride and 100 mg. of nicotinic acid were given.

At 1:30 P.M. of the same day, the patient's condition had somewhat improved. Temperature was 101.6°. The restlessness had yielded to a sound sleep from which she responded sluggishly to pain and noise stimuli. She followed moving objects slowly. The purposeless movements of her right arm were not so pronounced and she appeared to be resting more comfortably.

The pupils measured 5 mm. in diameter and were disrounded, especially the right. Pupils reacted promptly to light and accommodation. Fundi and discs continued to show a normal appearance. The neck remained extremely rigid with the Brudzinski sign still markedly positive. Edelmann's big toe phenomenon likewise remained positive, particularly on the left side. The deep tendon reflexes were absent with the exception of the right biceps, which was weakly present. Sodium thiosulfate and ascorbic acid injections were repeated in the amount and mode mentioned above.

At 3:30 P.M. patient was able to take small sips of water given by dropper. At 5:00 P.M. she again received 500 mg. of ascorbic acid intravenously. At 6:00 P.M. the temperature was 100° rectally; the pulse 100 per minute.

At 9:15 P.M. the patient vomited small amounts of clear liquid with small particles of mucous. Temperature had fallen to 99.8°. Despite the emesis, she was permitted to continue to sip water from a medicine dropper.

During the night, patient slept well at intervals; however, she refused to take liquids by mouth. The movements of her eyeballs appeared more nearly normal and at 2:30 A.M. of the 24th she feebly but correctly responded to questions pertaining to the identification of her relatives. Her head was held in right-left rotation; she was still incontinent in urine and feces.

At 9:00 A.M. of the 24th, temperature was 97.8°; the pulse, 88. The patient's condition appeared much improved. Her eyes followed moving objects with rapidity. The head remained strongly rotated to the left, however, and extreme resistance was offered upon attempts to move it to the midline. She followed simple commands, such as, "Squeeze my hand," "Touch your chin," etc. Brudzinski was still present. The deep tendon and periosteal reflexes had now returned.

After intravenous administration of 500 mg. of ascorbic acid, she received 2,000 cc of fluids subcutaneously. At 2:00 P.M. she received 10 mg. of thiamine chloride and at 4:00 P.M. another 500 mg. of ascorbic acid intravenously. 125 cc of eggnog by stomach tube were retained. In the evening she summoned the nurse and at midnight asked for food and a pillow. The neck rigidity had diminished. The patient turned her head slowly from side to side. In the early morning hours of the 25th, the patient became restless, moaning and crying, and complained of abdominal pain. She drank milk slowly from a glass and recognized her parents. At 9:00 A.M. the temperature was 99°; pulse 88. She was given 500 mg. of ascorbic acid, 10 mg. of thiamine chloride and 50 mg. of nicotinic acid. She offered lucid responses to questions. The neck exhibited only mild rigidity; the Brudzinski was weakly positive.

At noon, patient consumed a good meal and took a total of 800 cc of fluid during the course of the afternoon. There was a persistence of urinary and fecal incontinence. At 5:00 P.M. the morning medication was repeated. Her temperature continued to be normal and she voided voluntarily. At 9:30 patient had become so restless that she required sedatives (hyoscine hydrobromide, gr. 1/100 h.c.). On the morning of the 26th, patient hallucinated freely and was quite restless and confused. Later in the morning, however, she identified objects and persons correctly and was partially oriented. She again received 100 mg. of nicotinic acid and 10 mg. of thiamine chloride intramuscularly twice during the day. She was now continent in urine and feces. Intermittently during the course of the day and night, confused periods and delirious hallucinatory episodes occurred.

On the morning of the 27th, the patient loudly discussed details of her intimate sexual relationships and would shout at the top of her voice. Episodic delirious-hallucinatory experiences continued. She refused breakfast but took lunch. From the early afternoon on she became increasingly lucid and rational and appeared nearly completely recovered on the following day, May 28, 1943. On the 29th she was allowed to sit in a wheel-chair for a few minutes and walk about the bed. The next few days were uneventful. Final neurologic examination immediately prior to patient's discharge

on June 1st was essentially negative with the exception of impaired tandem gait and mild ataxia while standing on one leg with closed eyes.

COMMENT

A brief summary of the case report may stress the following points:

A healthy, robust, fifteen year old girl with early syphilis developed an urticariform erythema on the second, and cerebral complications commensurate with the typical symptoms of a hemorrhagic encephalopathy on the third day following completion of a five-day treatment course with a total of 1.2 gm. of mapharsen. Despite energetic general medical and nursing care the patient reached an almost terminal condition on the second day following the onset of the cerebral symptoms. Fifteen hours following the intravenous administration of a total of 1,000 mg. of sodium thiosulfate, 1,500 mg. of ascorbic acid, 10 mg. thiamine chloride and 100 mg. nicotinic acid, patient had decidedly improved and continued to improve rapidly under daily injections of 1,000 mg. each of ascorbic acid and sodium thiosulfate, including thiamine chloride and nicotinic acid medication, until final recovery had been accomplished nine days after the onset of the cerebral symptoms.

One of the questions of major importance in this case is centered upon the efficacy of the therapeutic agents employed. With the mortality rate of hemorrhagic encephalopathy following five-day mapharsen treatment being only 26%, and with the added consideration that the patient was a physically mature and robust individual, an observer might be inclined to assume that recovery would have ensued in any event under adequate nursing and medical care. This assumption receives further confirmation from investigations[6,7], which proved that "the urinary, fecal or total arsenic excretion was not significantly affected by the administration of sodium thiosulfate in properly used therapeutic doses." The authors "obtained no evidence that sodium thiosulfate injected intravenously mobilizes arsenic from body stores for urinary elimination . . . Sodium thiosulfate does not mobilize and probably does not immoblize arsenic stored in body tissues."

The use of ascorbic acid, however, finds a quite different appraisal in the literature[8]. It had been recently shown that ascorbic acid prevents the formation of the toxic oxidation products in vitro, when added to neoarsphenamine or mapharsen[9,10], and its "protective action afforded the human skin against arsenical therapy" was demonstrated[9]. Ascorbic acid in intravenous daily doses up to 300 mg. was furthermore beneficially employed in the treatment of arsenical dermatitis,[10,11] and its merits to forestall, alleviate and relieve the symptoms of arsenical sensitivity conclusively established[8]. It must be emphasized, however, that the efficacy of ascorbic acid through such antioxidant or antihemorrhagic properties in our case remains on speculative grounds. Our clinical observations merely affirmed that the administration of huge doses of ascorbic acid coincided with the turning point in the patient's critical condition. The anti-hemorrhagic action of ascorbic acid appears to be supported by the report of Kalz and Steeves[12] who observed a reduction of the prothrombin concentration in fifteen patients during five days of massive treatment with arsenicals.

In the absence of authoritative insight into the media of prevention or amelioration of the hemorrhagic lesions, we are in addition confronted by the question why such hemorrhages occur "in some patients and not in others"[13].

The concept of Globus and Ginsberg[1] that the cerebral disturbances are due to a direct effect of the arsenical compound or its fractions on the endothelial lining of the capillaries and that the vascular injury is the essential factor in the various reactions doubtlessly receives clinical and pathological confirmation from any particular case. Such a concept does not, however, afford an answer to the question of affective selection. None of the various theories broached, such as individual idiosyncrasy to the drug; sensitization of the capillaries by preceding doses of the medication and deficient elimination of the drug due to adrenal insufficiency or "metabolic idiosyncrasy"; or toxic concentration of arsenical products furnishes an edaquate explanation for the increased susceptibility. It will, therefore, be not without interest to consider the problem from a somewhat different angle.

Quite aware of our scanty material (this present case and a few substantiating remarks in the literature) it must be cautioned that the following cannot be offered as a theory but merely a

conjecture subject to confirmation or rejection from the observation of future data.

In the present case, the patient, who was of average intelligence, had a history of six arrests for petty delinquency; a tendency, well-defined, toward sexual promiscuity was manifest at the age of thirteen. In the present case, social history disclosed that the patient's parents lived in a slum district, the mother of low mental endowment, the father an alcoholic. Since the patient's childhood, the parents had neglected to provide adequate moral guidance. These various factors pointed to a diagnosis of juvenile psychopathic personality.

The reports in the literature on cases of hemorrhagic encephalopathy are rather uniformly limited to a brief physical description of the patient's condition prior to initiation of treatment. Only a few authors, in a very summary manner, describe psychological data. Thomas and coauthors[14] specify one case marked by emotional instability; another case, as dull and of low intelligence. Boyd and Nie[13] record the history in one of their cases as "essentially without significance except for fainting attacks when he was frightened." Bowman and Sheehan[15] report a similar case of a man who developed a toxic encephalopathy, with "an indefinite history of fainting spells, associated with fear of pain, such as experienced on going to the dentist."

Courville and Marsh[16] describe a young woman with a history of idiopathic grand mal in whom the symptoms of hemorrhagic encephalopathy occurred after the second injection of arsphenamine. Levy[17] has published the case of a physically and mentally well developed thirteen year old girl suffering from congenital syphilis who had always been of a restless disposition. It is very difficult to decide whether or not the authors in reporting cases of hemorrhagic encephalopathy following arsenical medication had reviewed the psychologic status of their cases prior to the cerebral incident or whether the usual remark that the history of the patient did not show any "essential findings" actually was intended to convey the impression of an apparently normal and emotionally stable individual whose life remained uncolored by any nervous or mental deviation. It is also possible that pertinent information was unavailable.

Conferring with a group of writers who had published their observations on massive arsenotherapy in early syphilis, it was learned from Usher[18] that among his case material encephalopathy developed in a "definite psychopathic personality." Rattner[19] comments that the five day routine had to be interrupted in approximately 6% of his patients because complications developed. These patients were described by the internes in terms such as "peculiar personality, untrustworthiness, nuts, and so on." Boyd[20], however, pointed out that he had seen numerous "unstable, unpredictive psychopaths of the prostitute and criminal classes who had gone through massive arsenotherapy without the least difficulty."

Bowman[21] observed epileptiform seizures, grand mal in character in a patient who did not admit until after the treatment was started that she had been suffering from epilepsy. Thomas[22] reports that of eight definite clinical cases of arsenical encephalopathy, one was "an irresponsible type with homosexual tendencies"; another patient "had a very low grade mentality, and who might well be said to have a psychopathic personality"; and a third case, "who was practically a moron."

In the light of these merely suggestive data, it may be but tentatively surmised therefore that an individual known to be afflicted with signs of an organic or functional neuropsychiatric disorder may be predisposed to develop cerebral complications under the impact of the arsenical drug. The brain of such individuals may constitute a locus minoris resistential potentially more susceptible to brain damage than that of so-called normal individuals.

SUMMARY

A survey of the literature on hemorrhagic encephalopathy during or following five-day treatment with mapharsen reveals a mortality rate of only 25% from that complication in contrast to a fatality percentage of 76% under the same mode of administration of other arsenicals. The relative benignance of that complication is confirmed by the case of a fifteen year old girl with early syphilis who developed typical symptoms of hemorrhagic encephalopathy on the third day following completion of a five-day treatment course with a total of 1.2 gm. of mapharsen. Final recovery was established nine days following the onset of the cerebral incident.

The role of the therapeutic agents employed is discussed and the use of high doses of ascorbic acid recommended.

In the search for an explanation of the affective selection of this complication, attention is drawn to the psychopathic behavior of the present case prior to hospitalization and findings in the literature recording nervous or mental deviation in patients who later developed hemorrhagic encephalopathy. It may be tentatively conjectured that an individual known to be afflicted with signs of an organic or functional neuropsychiatric disorder may be predisposed to develop cerebral complications under the impact of the arsenical drug.

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THE ILLINOIS HOSPITAL SURVEY

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SPRINGFIELD

On national, state, and local levels at the present time there is a great deal of constructive thinking and some action regarding the availability and adequacy of hospital facilities in rural and urban areas. To conduct an unbiased and thorough study of present hospital service in the United States the Commission on Hospital Care, a non-government public service committee was organized. This Commission, under the direction of Doctor A. C. Bachmeyer, has been responsible for the instigation of independent studies in fourteen states to date and has spent a tremendous amount of effort in designing Schedules of Information which may be used in the acquisition of salient data on hospitals.

In May, 1945, upon the recommendation of the Commission, the American Hospital Association, and the Illinois Hospital Association, Governor Green authorized the Illinois Department of Public Health to make a detailed statewide survey of facilities for bed care of the sick. The institutions to be included in this study are all hospitals, convalescent homes, and nursing homes, both public and private. In addition, clinical and allied facilities available through local health departments will be appraised. The data relating to the number and type of beds,

equipment, personnel, location, accessibility and fiscal status of the institution as well as the geography and economics of the environs, will be assembled on voluminous Schedules of Information sent out to each institution.

The information so gathered will be subject to analysis by the Commission on Hospital Care as a part of the national survey, and of more interest to the citizens of Illinois, this data will be of basic importance in the state study. To assist the Department in the conduct of this Survey and in the interpretation and utilization of the findings, the Governor has appointed an Advisory Council of about fifty men and women representing the various key interests in the state. The Chairman of this Council is Doctor Robert S. Berghoff, President Elect of the Illinois State Medical Society. The membership of the Advisory Council is as follows:

Herbolsheimer, Dr. Henrietta, Executive Secretary, Springfield, Illinois Department of Public Health. Allen, Dr. Raymond B, 1853 West Polk Street, Chicago, Dean, College of Medicine, University of Illinois. Barrett, Rev. John W., 31 East Congress Street, Chicago, Chairman, Commitee on Government Relations, Illinois Hospital Assn. Bourscheidt, Dr. Paul F., Central Illinois Hospital Service, Peoria, Blue Cross Plan. Bryan, Dr. W. J., 1601 Park View, Rockford, President, Illinois Tuberculosis Association. Burns, Mrs. Kathryn Van Aken, 206 Women's Building, Urbana, Extension Service in Home Economics, University of Illinois. Butler, Mrs. E., Box 192, Alton, Health Chairman, Illinois Congress of Parents and Teachers. Canty, Mr. Arthur, 343 South Dearborn, Chicago, Commander, Illinois Department, American Legion. Christenson, Mrs. Frank C., 1637 51st Street, Cicero, Health Chairman, Illinois Federation of Women's Clubs. Clippinger, Mr. Roy, Carmi, Publisher, The Democrat Tribune. Cross, Lt. Governor Hugh, Springfield, President, Illinois State Senate. DeBuek, Dr. Roger W., Evanston Hospital, Evanston, Chicago Hospital Council. Donnelly, Mr. James L., 120 S. LaSalle Street, Chicago, Executive Vice-President, Illinois Manufacturers Association. Dudley, Dr. Gerry B., Charleston, Illinois State Medical Society. Eckert, Mr. E. A., Route 2, Mascoutah, Master, Illinois State Grange. Erikson, Mr. Carl, Schmidt, Garden & Erikson, Architects, 104 S. Michigan Ave., Hospital Architect, Chicago. Falls, Dr. Frederick H., 1853 West Polk, Chicago, College of Medicine, University of Illinois. Fisher, Mrs. Walter T., 225 N. Michigan Avenue, Chicago, President, Illinois League of Women Voters. Gatton, Mr. J. L., St. John's Sanitarium, Springfield, Illinois Conference of the Catholic Hospital Association. Green, Hon. Hugh, Jacksonville, Speaker, Illinois House of Representatives. Hilliard, Mr. Raymond N., 160 North LaSalle, Chicago, President, Illinois Welfare Association. Hummel, Stuart K., Silver Cross Hospital, Joliet, Committee on Government Relations, Illinois Hospital Assn. Hutton, Dr. James N., 30 North Michigan Avenue, Chicago, Illinois State Medical Society. Lawson, Miss Elizabeth, Charleston, Past President, Ill. Division American Assn. of University Women. Lay, Mr. Chester Lay, Carbondale, President, Southern Illinois Normal University. Levin, Mr. S., 333 South Ashland, Chicago, President, Ill. State Union Council, Congress of Industrial Organizations. Linck, Mr. Lawrence J., 427 North Vine, Hinsdale, Exec. Sec., National Association for Crippled Children & Adults. Lindstrom, Prof. D. E., 300 New Agriculture Building, Urbana, Chairman, Community Relations Seminar, University of Illinois. Lunde, Mrs. Laura, 6708 Olympia, Chicago, Secretary, Illinois Women's Conference on Legislation. Lyerla, Mr. O. W., Herrin, Southern Illinois Incorporated. McNealy, Dr. Raymond W., 720 North Michigan Avenue, Chicago, Illinois State Medical Society. McNulty, Dr. Robert W., 1574 West Harrison, Chicago, President-Elect, Illinois State Dental Society. MacEachern, Dr. Malcolm T., 40 East Erie Street, Chicago, Associate Director, American College of Surgeons. Mathias, Mr. Paul E., 608 South Dearborn Street, Chicago, Illinois Agricultural Association. Nelson, Mr. Oscar, 11 South LaSalle, Chicago, Executive Secretary, Illinois Postwar Planning Commission. Nicholson, Miss Edna, 343 South Dearborn, Chicago, Director, Central Service for the Chronically Ill. Nickell, Mr. Vernon L., Springfield, State Superintendent of Public Instruction. Poust, Brig. Gen. Cassius H., Springfield, Director, State Department of Public Welfare. Ryerson, Mr. Edward L., 160 North LaSalle Street, Chicago, Chairman, Illinois Public Aid Commission. Sargent, Mr. A. L., 537 South Fourth, Springfield, Director, Illinois Municipal League. Shaughnessy, Dr. Howard, 1800 West Filmore, Chicago, President-Elect, Illinois Public Health Association. Smith, Dr. Herman M., Chicago, Director, Michael Reese Hospital. Soderstrom, Mr. R. G., 503 Security Building, Springfield, President, Illinois Federation of Labor. Stephens, Mr. Robert, First National Bank Building, Springfield, Secretary, Illinois State Bar Association. Stevenson, Dr. Walter, 510 Maine Street, Quincy, Illinois State Medical Society. Wanless, Mr. Fred, 317 South Fifth Street, Springfield, Realtor, Hospital Boards. Wham, Mr. Benjamin, 231 South LaSalle, Chicago, Chairman, Illinois Statewide Public Health Committee. Wolfer, Dr. John A., 700 North Michigan, Chicago, President, Society for Control of Cancer. Van Horn, Miss Ella, 160 North LaSalle, Chicago, Coordinator of Schools of Nursing, Nurse Examining Committee, Department of Registration and Education.

A survey of the extent of the Illinois Hospital Survey is a large responsibility and will in all probability be an enormous amount of work for hospital superintendents in making information available; for the Health Department and the Advisory Council in analyzing the data, establishing standards, and formulating state plan. Out of thinking and planning based on knowledge of locally existing facilities and needs, we may rightfully expect recommendations that will guide those groups in local communities who wish to provide optimally for their demands for hospital care. There should be fewer duplications of facilities, fewer constructions altruistically conceived but economically unsound, fewer areas that are devoid of good hospital service. And from such planning we might anticipate a coordinated system of hospitals making available complete care and modern equipment to all the people in our state and country, wherever they may be.

Physical Medicine Abstracts

John S. Coulter, M.D.

THE EFFECT OF ULTRAVIOLET IRRADIATION ON THE BLOOD HEMOGLOBIN

Adelaide P. Barer, Ph.D., and Willis M. Fowler, M.D.
Iowa City, Iowa

In THE JOURNAL OF LABORATORY AND CLINICAL MEDICINE, 30;7;603
July, 1945

These results indicate that ultraviolet irradiation produces a very slight but persistent increase in the blood hemoglobin level. The increase is not great enough to recommend this as a routine therapeutic procedure in hypochromie anemia, although it may sometimes be useful as a supplement to other forms of therapy in selected cases.

MANAGEMENT OF PELVIC INFLAMMATORY DISEASE OF GONORRHEAL ORIGIN

M. Ray Gottesfield, M.D., Denver, Col.

In ROCKY MOUNTAIN MEDICAL JOURNAL, 42;7;517
July, 1945

Medical Management

1. Acute phase

a. The patient is placed in a low Fowler's position to facilitate drainage into the pelvis by gravitation.
b. Complete bed rest.
c. Sedation sufficient to relieve pain.
d. Parenteral administration of fluids (approximately 3,000 cc. per day) until the patient can tolerate fluids by mouth.
e. Low residue diet.
f. Daily elimination by enemata, supported by oral administration of mineral oil.

2. Chronic phase

a. Foreign protein—10 cc. given intramuscularly every third day.
b. Elliott treatment or diathermy.
c. Avoidance of all sex trauma.
d. Hyperpyrexia: this is particularly valuable in gonorrheal arthritis.
e. Bartholin glands require surgical removal.
f. Skenes ducts drained or excised.
g. The cervix — cauterization with silver nitrate or the cautery knife. Occasionally the Sturmdorf operation, or actual amputation of the cervix, may be considered.
h. Chemotherapy

PHYSICAL THERAPY IN THE TREATMENT OF ARTHRITIS

Shelby Gamble, M.D.

In THE PHYSIOTHERAPY REVIEW, 25;4;166
July-August, 1945

Heat in its various forms, massage, and exercise are the basic agents in all treatments. A heat cradle with two to four 60-watt light bulbs over the involved knees and ankles for one-half to one hour three times daily not only gives continued infra-red baking but also keeps the weight of the covers off the painful joints.

As the patient becomes ambulatory, he receives additional treatment once or twice daily in the physical therapy department.

Depending on the individual case we have a slight preference for the paraffin bath, primarily because afterward the skin is in good condition for massage without additional lubricants. When the regimen is prolonged, the skin does not tend to become as dry or raw and edematous with the paraffin baths as with the whirlpool baths. However, in any condition with a wound there is no substitute for the whirlpool bath, and the gentle massaging effect does much, especially if

there is little time or a shortage of technicians to carry out manual massage afterward.

Sunlight and artificial ultraviolet irradiation are valuable as general tonic measures, even though they have no proved scientific effect.

Common ion transfer, using either histamine or mecholyl as visodilating drugs, is said to be of value applied locally to a joint which does not respond to ordinary measures. Our experience with this form of treatment is limited, because we prefer to use the more common methods.

Fever therapy in arthritis is an important agent. Intravenous typhoid vaccine is very satisfactory for the production of fever. Fever therapy by means of a cabinet is very time consuming and highly specialized. Adequately trained personnel is of utmost importance, and during the present shortage of technicians we have dispensed with this form of treatment.

The importance of exercise is generally disregarded. As our service hospitals have dramatically shown, it takes only a few simple movements a day to keep a joint from becoming ankylosed when immobilized.

Disregarding arguments for and against passive and active exercise, each joint in the beginning, after heat and massage have been applied, should be put through as full a range of motion as possible without undue distress to the patient. If the patient cannot do this for himself, passive motion is indicated to maintain joint movement, because muscle weakness or substitution is not a factor as it is in certain other conditions.

INTERNAL DERANGEMENTS OF THE KNEE IN MILITARY PRACTICE

Hewson I. J. Kellam, M.D., F.R.C.S. (E.)

In THE CANADIAN MEDICAL ASSOCIATION JOURNAL, 53;2;147 August, 1945

An internal derangement of the knee is a common condition for which a soldier may seek medical advice, and is second only in frequency to orthopaedic conditions occurring about the foot and ankle.

The aim of treatment is to obtain a painless stable knee with intact ligaments, a full range of movement and a strong fully developed quadriceps muscle. All writers are agreed that active exercise is the method to obtain such a goal. The most important muscle so far as the knee joint is concerned is the quadriceps expansion and no knee is considered normal without full support of this structure. In our cases quadriceps-setting drill is commenced at least 48 hours prior to meniscectomy and resumed 48 hours after operation. Preoperative instruction in quadriceps exercises teaches the patient how to perform the act and is easily re-established following operation. By the third day the soldier can raise his leg off the bed. Exercises are given twice daily for 15 minutes, supervised by an Army Physical Training Corps instructor, and every hour for five minutes by the nursing sister in charge of the ward. On the 10th day the patient is allowed out of bed for half an hour and therafter for longer periods according to his tolerance. During the third and fourth weeks in hospital the soldier attends the gymnasium for more strenuous exercises including quadriceps drill against resistance. Cases with minor degree of fluid within the joint have the knee strapped with elastocrepe bandage.

Severe postoperative effusion is very uncommon and where necessary this is aspirated to relieve tension and prevent attenuation of the cruciate ligaments.

THE PRESENT STATUS OF THE EARLY TREATMENT OF POLIOMYELITIS

John A. Toomey, M.D., Cleveland, Ohio

In THE WISCONSIN MEDICAL JOURNAL, 44;8;785 August, 1945

Putting a patient in a fixed cast and keeping him there does not allow for maintenance of circulation and nutrition to the best advantage. Such treament will probably do the patient harm; physiotherapy and reeducation are not started early enough in this group.

No one has demonstrated that immobilization for short periods of time, a few weeks or so, harms the patient. If, in addition, the patient gets physiotherapy daily, the results will be good. This has been conclusively demonstrated by the Baltimore group.

Good results can be secured in the primary and secondary phases of the disease with the Kenny treatment as well. Her patients are lax. Statistics may not always give a good idea as to the betterments conferred by her method. But here again, the results are not due to any particular therapy but to persistent physiotherapy. The method is expensive, requiring a large number of nurses and technicians. This is beside the point,

however, if it were conclusive in all instances, but it, too, has its failures as can be seen from the report of the first 27 cases treated by the Minneapolis group.

No matter what treatment is applied, the results will depend upon the enthusiasm, knowledge, patience, and perseverance of physiotherapy and muscle reeducation employed by the individual who cares for the patient.

FREEZING TREATMENT OF TUMORS
(Preliminary Communication)

Frederick M. Allen, M.D., Frank K. Safford, Jr. M.D., and Lyman Weeks Crossman, M.D., New York
In ARCHIVES OF PHYSICAL MEDICINE, 26;8;501 August, 1945

A salient feature of this treatment is the freezing with carbon dioxide ice for longer periods than have heretofore been employed. Our maximum thus far has been a ten minute application with pressure, repeated three times, but the actual tolerance limits is not yet established. The longer periods provide deeper penetration of the cold and increase the degree and extent of the ensuing inflammation. Too long an application must cause an indiscriminate necrosis of tumor and normal tissue, like the massive freezing methods of the previous century. The item of essential interest is the seemingly selective necrosis of the neoplasm, so that apparently every tumor cell dies and every normal cell survives. The high resistance of cancer cells to cold, which is familiar in the literature, furnishes one argument for the still tentative hypothesis that the destruction is somehow connected with the ensuing inflammation and thus may be identical with the results of temporary local asphyxia.

On this assumption, the effects of freezing are radically different from those of cautery, of either the thermal or the electric kind. In addition, the practical painlessness of the freezing treatment eliminates the need for anesthesia, and even if the duration is extended to the point of killing some normal tissue, the peculiarity of the healing process is such that, within certain limits, a disfiguring or deforming scar need not be anticipated. The ideal, however, is to obtain selective necrosis of the tumor with no lasting damage to the normal tissues.

FRACTURES ABOUT THE ELBOW IN CHILDREN

Harold B. Boyd, M.D., and A. Ralph Altenberg, M.D., Memphis
In THE JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION, 38;8;245 August, 1945

Fractures involving the elbow joint in children are relatively common. In studying the files of the Campbell Clinic, we find that over 700 of these fractures have been treated by members of the staff in individuals twelve years of age or under. This does not include the fractures treated on the service at the John Gaston (City) Hospital.

Physical therapy is rarely necessary in a child. Full motion might be obtained quicker by the use of physical therapy, but the time element is of no economic importance to a child. Gradually increasing active motion is safer and much cheaper than passive motion and massage carried out by a physical therapist.

THE SURGICAL TREATMENT OF INJURIES OF THE BRAIN, SPINAL CORD, AND PERIPHERAL NERVES

John E. Scarff, M.D., F.A.C.S., Lieutenant Colonel, M.C., A.U.S., New York
New York. In SURGERY, GYNECOLOGY AND OBSTETRICS, 81;4;424 October, 1945

Physical and mental rehabilitation of patients who have received a craniocerebral injury requires good judgment and skill. The patient must be encouraged in every way to think that the injury has been only a slight one. Terms like "concussion of the brain" and "compound fractures of the skull" must be absolutely forbidden, and in the presence of the patient such simple terms as "bump on the head" and "cut on the head" substituted. Lumbar punctures in conscious patients are usually unnecessary and are particularly to be avoided. They add little useful knowledge, have little therapeutic value, and leave a deep and bad psychological scar. An arbitrary period of bed rest for 2 to 3 weeks, as was formerly practiced, is no longer approved. Instead, as soon as the patient feels able to sit up or go to the lavatory, or to have his meals, he should be allowed to do so. He should be encouraged to participate in the care of his room and his own person. Physical therapy including

passive motion, baking, massage and electrical stimulation, should be directed to paralyzed limbs.

Recovery of function in extremities and sphincters after severe spinal injury may require weeks or even months. If meticulous care of the skin, bladder and limbs, including massage, passive motion of joints and corrective splinting, be maintained, many seemingly hopeless cases will recover a great measure of useful function.

In Peripheral Nerve Injuries physical therapy should be instituted about the third week after suture. This should include daily massage, to improve circulation; passive and active motion to keep joints, tendons and muscles supple; and galvanic stimulation, applied directly to individual denervated muscles, to preserve the contractility of muscle element and to prevent the atrophy of disuse. The minimum effective galvanic stimulation consists of 30 contractions of each paralyzed muscle, repeated three times daily, three days each week. More frequent stimulation is, of course, desirable.

Splints should be used as needed to reenforce weakened or paralyzed muscles and prevent contractures; but these splints should be of such a type as to allow free, voluntary, and passive movements of all joints. If plaster-of-Paris splints are used they should be worn only at night, and left off during the daytime, and the patient encouraged to carry out maximum passive and active movements during his waking hours.

NORMAL PHYSIOLOGIC DOUCHES

K. J. Karnaky — P. 107
In AMERICAN JOURNAL OF SURGERY, NEW YORK, 69;1-140 (July) 1945
Abstracted in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 129;5;408 September 29, 1945

Karnaky points out that many physicians are still prescribing alkaline substances, sodium pergorate, borax, sodium bicarbonate, potassium permanganate, magnesium sulfate and sodium chloride or a combination of these, in the treatment of vaginal leukorrhea or as a cleansing douche when it is scientifically established that the normal hydrogen ion concentration of the adult vagina is acid. He thinks that acid douches (ph 3.0 to 5.0) should be used, because with pathologic changes there is hypo acidity of the vagina, and, as these changes increase, the hydrogen ion concentration approaches the alkaline side. Alkaline douches favor the growth of pathogenic organisms. The best douche found in ten years of research is vinegar. The patient should be instructed to use 5 tablespoons of vinegar to the douche bag if there is an acute vaginitis. After two weeks, 2 to 3 tablespoons is used instead of 5. For an ordinary cleansing douche 3 tablespoons of vinegar should be added to the douche bag.

MALUNION OF FRACTURES

R. Broomhead, F.R.C.S.
Orthopaedic Surgeon, General Infirmary, Leeds; Lecturer in Orthopaedics, University of Leeds.
In THE PRACTITIONER, 926;155;80 August, 1945

Treatment of established malunion. — Since there is a tendency at the present time to devise more and more elaborate operations, it may perhaps be as well to stress that much can be done by relatively simple methods for patients with malunion; and it must be borne in mind that the aim is to improve function, not a skiagram. It is no great surgical triumph to produce a skiagram with correct alignment if function is no whit better. There is nothing more fallacious than x-ray diagnosis and treatment.

If a patient has a malunited fracture his loss of function is often due to loss of movement, but that loss of movement is not certain to be due to bony causes. Loss of movement is often due to adhesions of soft parts which can be broken down and mobilized by careful, and possibly repeated, manipulations under anesthesia. If such procedures are interspersed with periods of concentrated physiotherapy, although there may not be a full return of normal function, it may be possible to restore enough movement to give the patient adequate function, and major operations may be evaded. This is particularly so when the fracture has been in the region of a joint.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

BUREAU COUNTY

Captain E. H. Schnicke of Wyanet is home on leave after 31 months of overseas duty. He wears the Bronze Star, the Medical Combat Badge and the North African and European campaign ribbons with three major campaign stars. He will soon report to Camp Breckenridge, Kentucky, for further assignment.

CHAMPAIGN COUNTY

Adrien Verbrugghen addressed the Champaign County Medical Society at a dinner meeting on October 11th. He spoke on "Neurosurgical Problems in Children and Adults."

COOK COUNTY

Paul B. Magnuson of Chicago will leave his present post as associate professor of Surgery at Northwestern University Medical School to devote his full time toward development of opportunity for medical personnel of the Veterans Administration to increase their skills through medical research and postgraduate work leading to specializing in medicine and surgery. He will have charge of developing research programs for the Veterans Administration, in conjunction with consultants in special medical fields, formulation of training policies for medical personnel and establishment and operation of all schools or courses of instruction on professional subjects for V.A. doctors.

Carl A. Dragstedt, Chairman of the Department of Pharmacology at Northwestern University gave a talk on Penicillin before the Park Ridge Kiwanis Club, September 26th.

Dr. Leon O. Jacobson, assistant professor of medicine at the University of Chicago, has been appointed associate dean of the university's division of biological sciences, President Ernest C. Colwell has announced.

Dr. Jacobson, who has been associate director of the biology and medicine division of the metallurgical project at the University of Chicago for the past three years, was made a staff member of the department of medicine at the university in 1941.

He received his doctor of medicine degree from the University of Chicago in 1939 and his bachelor of science degree from the North Dakota Agriculture College in 1935.

Warren Cole, Chicago, Professor of Surgery at the University of Illinois College of Medicine spoke on "Treatment of Surgical Lesions of the Stomach including Pre- and Post-Operative Care" before a joint meeting of the Wisconsin Academy of Surgery and the Jackson Clinic Post Graduate Group at Madison, Wisconsin, on October 19.

Lt. Col. George A. Wiltrakis of Chicago has been appointed deputy director of medical and surgical service of the Illinois Public Welfare Department. Formerly with the public welfare department for 11 years and superintendent of the Alton and Peoria state hospitals, Doctor Wiltrakis has served in the Army Medical Corps since February, 1941.

Jack Friedman of Chicago has been promoted from Major to Lt. Colonel.

Miss Harriet Fulmer of Chicago, first president and founder of the Illinois State Nurses Association in 1901, was a special guest of the association on October 19th at Peoria, at a dinner meeting of the Association. Miss Fulmer was responsible for the first public health nursing in the state when she organized a system of Health Chore cards to make pupils conscious of health habits. In Miss Fulmer's honor a double barred red cross is now erected on RR 1 near Carmi, the county seat of White county, where she first began the health card checking system which was used for many years in the state and throughout the nation.

J. Milo Anderson, assistant superintendent of the University of Chicago Clinics and superintendent of the Chicago Lying-In Hospital and Dispensary, was to take over a new appointment as administrator of the Methodist Hospital, Gary, Ind., August 15.

Mr. Robert M. Cunningham Jr., associate editor of *Hygeia*, has been named managing editor of the *Modern Hospital* of Chicago, succeeding Alden B. Mills who left October 13 to become superintendent of the Huntington Memorial Hospital, Pasadena, Calif. In addition to his work on *Hygeia*, which is the health magazine of the American Medical Association, Mr. Cunningham has been since 1937 director of public relations on a part time basis for Evanston Hospital, Evanston, Ill. He has written extensively for national magazines on medical and related topics. Before joining *Hygeia* in 1941, Mr. Cunningham was for three years a member of the staff of the Chicago Plan for Hospital Care, the nonprofit hospital prepayment organization. He served variously as assistant to the executive director, head of the hospital department and director of enrolment and public relations.

Effective September 1 the following members of the faculty at the University of Illinois College of Medicine have been promoted to the rank indicated:

Dr. Arthur R. Cooper, Oak Park, Ill., to professor of anatomy.

Dr. Roy L. Webb, Charleston, W. Va., to professor of anatomy.

Dr. Abraham R. Hollender, Miami, Fla., to professor of otolaryngology.

Dr. Warren S. McCulloch, to professor of psychiatry.

Dr. William H. Cassels, to professor of surgery.

Robert H. Krehbiel, Ph.D., to associate professor of anatomy.

Dr. Oliver E. VanAlyea, to clinical associate professor of otolaryngology.

Dr. Richard W. Watkins, to clinical associate professor (Rush) of otolaryngology.

Dr. Ford K. Hick, Oak Park, Ill., to associate professor of medicine.

Dr. Theodore J. Wachowski, to associate professor of radiology.

Dr. Benjamin D. Braun, to clinical assistant professor of radiology.

Dr. Harold C. Lueth, Evanston, Ill., to associate professor of medicine.

Dr. James B. Eyerly, to clinical professor of medicine.

Dr. Loren W. Avery, to clinical professor of neurology.

Dr. Ben W. Lichtenstein, to associate professor of neurology.

Dr. Hiram J. Smith, to associate professor of ophthalmology.

Dr. Carl Apple, to associate professor of ophthalmology.

Dr. Louis Bothman, to clinical professor of ophthalmology.

Dr. Ralph Spaeth, to assistant professor of pediatrics.

Dr. Gertrude E. Howe, Cincinnati, to assistant professor of pediatrics.

Dr. Carl Ireneus Jr., to assistant professor of surgery.

Dr. Roy O. Riser, Park Ridge, Ill., to assistant professor of ophthalmology.

This year for the first time the University of Illinois is using the word clinical for its part time faculty members who are in the clinical departments.

Dr. John J. Madden was chosen president of the Illinois Psychiatric Society at its annual meeting recently. Other officers include Drs. Frances Hannett, vice president, and Charlotte G. Babcock, secretary-treasurer, all of Chicago.

Northwestern University has received $10,000 to establish a fund for "research into the cause and cure of cancer and the amelioration of suffering from that disease." The gift was made by Miss Edith L. Patterson as a memorial to her brother, Floyd Elroy Patterson, to augment a contribution of $575,000 made to Northwestern University in 1933 for the maintenance of the Patterson Cancer Clinic on the Chicago campus and to serve as a nucleus to establish the new fund.

CRAWFORD COUNTY

The Crawford County Medical Society met at Robinson on October 11th with Doctor John R. Taylor of Palestine discussing "The Present Status of Penicillin."

KANE COUNTY

Harold Voris of Chicago addressed members of the Kane County Medical Society, October 1, at a meeting held at St. Joseph's Hospital, Aurora. His subject, illustrated with motion pictures, was "Operative Management of Inter-Cranial Hemorrhage."

LAKE COUNTY

K. C. Beck of Waukegan has been appointed a member of the board of examiners of the Illinois Bell Telephone Company's program for reemployment of over 1,500 returning veterans.

LIVINGSTON COUNTY

Guy F. Turner of Long Point was entertained at a dinner recently in recognition of his completion of forty years of service as postmaster. He retired from the position on August 31. The

celebration was also said to be in honor of Doctor Turner's birthday.

MADISON COUNTY

The following officers were elected at a recent meeting of the staff of St. Elizabeth's Hospital, Granite City: President, David Friedman of Madison; Vice-President, D. G. Cariss of Granite City; and Secretary, Doctor J. R. Chaflin of Venice.

McDONOUGH COUNTY

The following officers have been elected to serve for the coming year by the McDonough County Medical Society: President, W. E. Carnahan; First Vice-President, A. P. Standard; 2nd Vice-President, Bill Standard; Secretary-Treasurer, W. M. Hartman.

Elizabeth R. Miner of Macomb was presented with a certificate in the 50 year club of the Illinois State Medical Society, at the October 11th meeting of the McDonough County Medical Society. The presentation was made by Doctor Charles P. Blair of Monmouth, Councilor of the 4th District.

Doctor Ruth Church of Washington, Iowa, has been assigned to Macomb as the new health officer for the bi-county (McDonough and Fulton) health unit. Doctor Church, who will assume her duties on December 1st, is a graduate of the University of Wisconsin College of Medicine and has had seven years experience as a county health officer.

MORGAN COUNTY

The Morgan County Medical Society met at Oak Lawn Sanitarium on October 11th as the guests of Dr. Walter C. Reineking, Superintendent. The program, provided by the State Department of Public Health, was given by Doctors Clifton Hall and Leslie Knott. The November meeting was held at the Jacksonville State Hospital. Judge Paul Fenstermaker gave a talk on the revised Mental Health Act in Illinois and Doctor Frederick Andrew Gibbs, University of Illinois College of Medicine, spoke on "Advances in the Diagnosis and Treatment of Epilepsy."

PEORIA COUNTY

The office of the Surgeon General has announced the promotion from Major to Lt. Colonel of Wilbur Lorenzo Bowen of Peoria.

Alexis F. Hartmann, professor of pediatrics at Washington University School of Medicine, spoke on therapy involving the administration of amino acids at the October 16th meeting of the Peoria County Medical Society.

Appointment of Doctor David Fey of Peoria as fire and police surgeon for the city has just been announced by the board of fire and police commissioners of that city.

Walter Baer, former Peoria psychiatrist, returning from military leave, became managing director of Manteno State Hospital at Kankakee on November 1st.

Major Charles F. Sutton, former Chillicothe physician, has been awarded the bronze star medal for meritorious achievement in connection with military operations in Italy.

ROCK ISLAND COUNTY

Four Rock Island county physicians who have practiced 50 years or more were honored at a meeting of the Society on October 9th at which time they were presented with certificates by Dr. Charles P. Blair of Monmouth, Councilor of the 4th District. The doctors receiving the 50 year pins and certificates were Joseph deSilva, Rock Island; W. L. Eddy, Milan; F. H. Gardner, Moline and O. S. Dailey, Port Byron. Doctor Reuben Nomland of Iowa City gave a paper on "Common Skin Diseases."

Captain Clarence S. Costigan, who formerly practiced in Moline, has been awarded the Bronze Star Medal for outstanding service in the European theater.

ST. CLAIR COUNTY

The board of directors of St. Clair County's Pleasant View Tuberculosis Sanatorium announces the appointment of Dr. John C. Wilson, honorably discharged naval commander from Quonset Point, Rhode Island, as director and superintendent of the institution. Doctor Wilson succeeds Doctor Robinson W. Bosworth who has resigned to enter private practice at Rockford, where he formerly lived.

VERMILION COUNTY

Harlan English of Danville has been elected Secretary of the Aesculapian Society.

William M. McMillan of Chicago addressed the Vermilion County Medical Society on November 6th, subject "Primary Resection of the Colon."

School examinations in Danville, under the direction of Doctor Harlan English are progressing as scheduled and will be completed within a very short time.

WARREN COUNTY

After an absence of nearly five years, Doctor Russell Jensen is resuming the practice of medi-

cine in Monmouth. He has been serving as a Lieutenant Commander in the Navy since January, 1941.

WHITESIDE COUNTY

William J. Maurits was elected President of the medical staff of the Morrison hospital, H. L. Pettit was elected Vice-President and R. H. Lester, Secretary and Treasurer at an organization meeting held early in October. The three doctors are all residents of Morrison.

WILLIAMSON COUNTY

Williamson County Medical Society met on November 6th at the Herrin Hospital, Herrin. The program was given by Dr. R. S. Sabine speaking on "The Emergencies in Obstetrics" and Dr. John Hrabic speaking on "The Toxemia of Pregnancy."

DEATHS

ALBERT H. ANDREWS, SR., Chicago; University of Iowa, 1889. Staff member of Wesley Memorial hospital and instructor of otolaryngology at Northwestern University Medical School; oculist for the Chicago, Rock Island & Pacific Railway System. Died October 8th at the age of 83.

ROBERT ERNEST ANTHONY, Rockford; Hahnemann Medical College and Hospital, 1908. Staff member of Swedish-American Hospital, Rockford. Died September 13th, aged 65.

OTTO BUDDE, Chicago; Northwestern University Medical School, 1895. Had practiced medicine in Chicago for 50 years and was given the golden reunion certificate by Northwestern University this year. Died October 24th at the age of 81.

JAMES TWEEDIE CAMPBELL, Chicago; Royal College of Surgeons, England, 1890, University of Toronto Faculty of Medicine, 1889, Bellevue Hospital Medical College, New York, 1889. Was senior laryngologist and otologist at St. Luke's hospital. Died October 26th, aged 80.

JOHN FISHER GAINER, Danville; University of Illinois College of Medicine, 1922. Died of a heart attack October 21st, aged 48.

WILLIAM B. GRAY, Canton, retired; Rush Medical College, 1887. Member of Illinois State Medical Society "Fifty Year Club." Died September 22nd after an illness of a few weeks at the age of 88.

HENRY RAYMOND GROSS, Chicago; State University of Iowa College of Homeopathic Medicine, 1910. Had practiced medicine in Chicago more than 20 years. Died of a heart attack September 30th, aged 59.

WLADYSLAW A. KUFLEWSKI, Chicago; University of Illinois College of Physicians and Surgeons, 1894. Was senior surgeon in St. Mary of Nabareth Hospital and for 25 years was chief medical examiner for the Polish National alliance. Died October 23rd at the age of 75.

WILLIAM D. PENNINGTON, Chicago; Hospital College of Medicine and Surgery, Louisville, 1893. Died October 23rd, aged 78.

WILLIAM J. QUIGLEY, Chicago; Rush Medical College, 1913. Had practiced medicine in Chicago for 30 years. Attending physician at County hospital and a member of the staff of St. Anne's hospital. Died in his home, aged 55, on October 1st.

HARRY J. SMEJKAL, Chicago; University of Illinois College of Medicine, 1908. Died October 3rd in St. Anthony's hospital, aged 63.

JOSEPH JOHN STASKO, Chicago; Northwestern University Medical School, 1944. Commissioned lieutenant (jg) MC, U.S.N.R. on Dec. 18, 1943; served overseas for about 7 months; died in the Asiatic area June 17 while on the hospital ship U.S.S. Refuge, aged 33, of aplastic pernicious anemia.

ANNNABEL CLEVELAND TEST, Chicago (Not in practice); Northwestern University Woman's Medical School, 1895. Died October 7th in Passavant Memorial Hospital.

CAPT. THOMAS L. WEBER, Olney; Washington University School of Medicine, St. Louis, 1937. Was member of staff of Olney Sanitarium. Enlisted in Army Air Force Medical Corps in November, 1942, and served one year in Alaska. Was drowned September 4th in Lake Kampkaska, South Dakota, when in a routine parachute jump. Was 34 years of age.

FRANK H. WESTERSCHULTE, Chicago; Rush Medical College, 1895. Had practiced medicine in Chicago for 50 years. Died at his home of a heart attack on October 17th, aged 80.

LETITIA A. WESTGATE, Mendota, retired; Northwestern University Woman's Medical School, 1892. Died at the home farm near Mendota on September 30th.

CLARA B. WOODWARD, Evanston, retired; Jenner Medical College, 1910. Died October 19th in the Presbyterian Home where she had lived since 1935.

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